

THE JAVANESE KRIS



Inv. Nr. 03 – 1863 (RMV)

Origin: Java.

Acquisition: unknown.

Kris of the *naga sasra*-type. On the front side of the blade we see the head of a crowned snake. Its body stretches along the entire length of the undulating blade that has thirteen curves. The body is inlaid with gold, as are the floral patterns surrounding it. The snake's chin rests on a *tumpal*-shaped ornament. The silver grip has the shape of a demon.

Length: 50 cm

ISAÄC GRONEMAN

THE JAVANESE KRIS

Preface and Introduction by David van Duuren

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Inv. Nr. 360 – 5394 (RMV), detail

(see description on page 25)

Opposite page:

Inv. Nr. 3600-9105 (RMV)

Length: 35.5 cm (without *peksi*)



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Inv. Nr. 1789 (WM), detail
(for description see page 8)



PREFACE

The Javanese Kris is the first complete translation of Isaäc Groneman's pioneering publication on the manufacture and manifestations of the Javanese kris: *Der Kris der Javaner*. His research was presented nearly a century ago – between 1910 and 1913 – as a series of articles written in German for the *Internationales Archiv für Ethnographie*, at that time a leading anthropological magazine published in Leiden. It was an expensive journal, full of maps, drawings, photographs and often included colour lithographs protected by tissue paper. The impressive tomes were bound in brown linen inscribed with golden letters. In comparison with several contemporaries of the *Internationales Archiv*, the number of private subscriptions would have been low and its distribution, therefore, limited. The early issues of the no longer existing *Internationales Archiv* have become rare and expensive. They are to be found mainly in university libraries, scientific institutes and ethnological museums and in most instances, probably no longer loaned out. A second barrier to the researcher and anyone who seeks to deepen his or her knowledge of Indonesian culture is, no doubt, the language in which Groneman wrote. The German language, which Dutch scholars normally used at that time, is not universally read. Thus, many interested parties can not directly consult Groneman's findings on the kris. High time, indeed, for an English edition of *Der Kris der Javaner*, especially as interest in this intriguing weapon is now once again strongly on the rise. We could have sufficed with a 'normal' re-issue of Groneman's articles in a modest publication, but due to the large number of Javanese krisses housed in Dutch museums and in the collections of Dutch private collectors, we could not resist the temptation to turn it into a special edition. We decided to richly enhance *The Javanese Kris* with illustrations of krisses from the three large ethnological museums in the Netherlands: the National Museum of Ethnology (Leiden), the Tropenmuseum (Amsterdam) and the Worldmuseum (Rotterdam). Rare Javanese manuscripts included in the present publication and relating to the kris are from the Royal Netherlands Institute of Southeast Asian and Caribbean Studies (KITLV) in Leiden. In addition, some collectors allowed their krisses and/or kris hilts to be photographed for *The Javanese Kris*.

Krisses are difficult museum objects in the sense that their blades are hidden. Lying on shelves, in drawers and in showcases, or attached to sliding walls, the greatest secrets

Inv. Nr. 1789 (WM)

Origin: Central Java.

Acquisition: 1884; donated by
Dr. E. van Rijckevorsel.

Kris (*naga sasra*) with thirteen
curves. The crowned snake has
diamond eyes. According to the
records of the Worldmuseum in
Rotterdam, this *keris* dates from
1789 and belonged to the Regent
of Yogyakarta. The cover of the
gandar is made of pure gold and
has an inlay of green enamel.

Length: 46.7 cm



of thousands of krisses in Dutch museums are invisible inside their wooden sheaths. For more than one reason, it proved quite unfeasible to remove those krisses from their lodgings one by one in order to establish a concordance with the shapes and *pamor* patterns discussed in Groneman's articles. Instead, we have made a selection. It does not run parallel to the models with which Groneman dealt, but it does present a fine overview of the krisses made on Java. Completeness was not our goal, this being almost impossible, but rather a selection worth publishing. With regard to the captions, existing documentation linked to the objects was consulted in the respective museums. However, these vary a great deal in quality, length and the resumé of the characteristics of the kris. Especially the earliest documentations are short. We have based the captions of the photographs on these descriptions, however, and they may be considered part of the museological history of the krisses.

When defining the components of the kris, the spelling of the terms may differ or be obsolete, depending on the individuals who documented these objects or the period in which these descriptions were made. For the most part, we have left this as it was, editing out verbiage here and there. We allowed the collectors whose krisses or kris hilts are included in the present publication a free hand to share with us what they themselves considered to be important. In general, collectors of krisses are extremely well-informed of the origin and symbolic meaning of their pieces. Their documentation is sound and accurate, often surpassing what is found in old museum records which, due to lack of time and manpower, can rarely be updated.

The alternative to this 'free' (and for a number of readers perhaps rather remarkable approach) would have been to force the krisses into the strict boundaries of a typology and to define them according to their origin, age, shape and *pamor* patterns, as is nowadays the practice in some collectors' circles. For a number of krisses, this would have been fairly easy; for several others, it would have been much more difficult. Many lists and typologies of the shapes of blades and *pamors* have been developed and they differ on significant points. Establishing the dates of krisses or assigning them to a certain period in the history of Java is an even more dangerous matter. Authoritative studies in which binding criteria are formulated, on the basis of which the age of a kris blade can be determined, are lacking. Thus, all attempts to determine the exact age of the illustrated weapons have also been avoided. If some readers of this book are disappointed by this omission, they may take

Inv. Nr. 1789
(WM), detail
(for description
see page 8)





Inv. Nr. 1772-791a/b (TM)

Origin: Surakarta, Central Java.

Acquisition: 1994 as part of the Tillmann collection donated to the Tropenmuseum. Collected in 1939 by Carel Groenevelt in the *kraton* of Surakarta for the collector G.H. Tillmann.

Large, straight kris with *pamor*.

On the front, we see a small gold figure of a hermit; near the tip, also in gold, the blade is incrustated with magical, powerful symbols: a discus, and on the other side a scorpion.

Length: 46.8 cm

solace from the fact that the vast majority of the krisses and kris hilts illustrated in this new edition of Groneman's research have never been published before.

Finally, as an appendix, we have added the translation of a shorter article that Groneman published in 1905, also in the *Internationales Archiv für Ethnographie*. In it, he describes the annual ceremonial cleansing of the sacred heirlooms, *pusaka*, of the Paku Alaman, a royal house in Yogya. It is a detailed report on the entire event that took place in 1904, including the description of the surroundings and the persons present. In addition, of course, characteristic of Gronemans desire to be comprehensive and of his eye for detail, he added lists of the various offerings to the sacred krisses, lances and gongs. Groneman wrote this article in Dutch, making it even more inaccessible from an international point of view than his *Der Kris der Javaner*. In our opinion, this report on the ceremonial cleansing forms an excellent addition to his larger, technical article. They constitute Isaäk Groneman's best publications on the Javanese kris.

David van Duuren



Inv. Nr. 1772-791a/b (TM) details (*for description see the opposite page*)



Inv. Nr. 185 (PH)

Origin: Yogyakarta, Java.

This rare-shaped blade is called *Megantoro*. Its seven curves begin distinctly, but end with a weak, almost invisible seventh curve. The scattered *pamor* is of the rice-corn type. The single-pieced sandal wood sheath has the *taman ngabehan* shape, as does the *tayuman* wooden hilt (*deder*). They are always linked. The *pendok blewah* is made of silver, smoothly stylised.

The stem ring, of the swollen rice (*paryjoto*) type, is silver-plated.

This is a revered, time-honoured heirloom (*pusaka*).

Length: 46 cm



Inv. Nr. 1 (TR)

Origin: East Java.

Acquisition: from Fettercairn House, Kincardineshire, Scotland.

Kris with nine curves and *pamor*. Golden floral motifs are inlaid on part of the blade and the *gandja*.

The sheath made from one piece of wood (*gandar iras*); Surakarta hilt.

Length: 44 cm

(Photograph: courtesy of T. D. Rogers, Oxford)

INTRODUCTION

Nobody who takes up the study of the Indonesian kris can ignore Isaïc Groneman. He belongs in the ranks of Dutch scholars, including J.A. Loebèr jr., H.H. Juynboll, G.P. Rouffaer and J.E. Jasper, who, at the beginning of the twentieth century, both in the Netherlands and in the Dutch East Indies, studied and mapped out with great energy and almost encyclopaedic grandeur the material culture of the indigenous populations.¹ In contrast with the practitioners of classic Indology who concerned themselves with the expansion, period-divisions, and explanation of the ancient Hindu-Buddhist monuments in the archipelago, they focused their essays on the contemporary, daily handicrafts and ‘industry’ of the Indonesians. The materials, techniques, intermediate and end-products that these researchers described or classified in painstaking detail in all their variations, constitute an almost endless inventory of everything created in the Dutch East Indies, from simple barkcloth to sophisticated batik, from beaten copperwork to gossamer-thin silver filigree, from plain wooden implements to polychrome sculptures, from undecorated shell bracelets to baroque royal ornaments. Almost nothing between Aceh and New Guinea escaped their attention, and to this day these studies on ‘Indische volksvlijt’ (‘indigenous industry found in the Dutch East Indies’, a denominator much applied at the time to encompass all of these technical skills) are a rich and irreplaceable source of knowledge.

It is striking that one rarely, if ever, finds the term ‘art’ in these publications. At best it appears in somewhat half-hearted composite terms such as ‘applied art’ or ‘art crafts’. Art as such – a select category of objects with a special status, role or quality requiring a specific approach – was not the concern of these people. It would have interfered with their inventories of material, manufacturing techniques, and their typological classifications. Only in the post-colonial years, when the starting point was no longer a type of wood, the composition of a metal alloy or the nature of the tools used, did a change in

approach occur. Certain objects were no longer considered as end-products of a technical procedure but as cultural artefacts and examples of tribal or court art.²

The systematic investigation into materials and their applications got under way during the final part of the nineteenth century when the Dutch East Indian cultural heritage was lifted out of the sphere of the exotic and curious, and slowly but surely came to be assessed at its correct value. However, these were also the years in which the growing availability of industrial utensils from the Netherlands – cheap pots and pans, cotton prints, tools, drawing-room objects and trinkets – seriously began to threaten the production of various local handicrafts. At the very moment that the entire spectrum of the indigenous handicraft culture was finally coming into view, one feared for its rapid demise. Aficionados of these aspects of Dutch East Indian life – including a number of administrators, but mainly people linked to museums and cultural institutions – looked sadly upon these developments. A certain Louis Lacomblé visiting an exhibition of Indonesian weapons in 1900 at The Hague, expressed a popular sentiment when he remarked that Indonesian handicraft was being pushed back by European influences, and ‘their weakened and characterless forms brought in by the shipload poisoning the Eastern elements’.³ In many cases this concern was not unfounded. At the beginning of the twentieth century, the organizing committees of Dutch East Indian annual urban markets and regional industrial exhibitions and the drafters of official inventories of the still existing trades and decorative arts in their governmental jurisdictions, were often lagging behind the facts. They could not prevent modern times from irrevocably claiming the Dutch East Indies, and this trend was coupled with the deterioration of indigenous utensils and decorative objects, tools and techniques. They attempted to rescue what was threatened so that it could flourish again. By bringing a number of matters to the attention of the wider public, and by using artistic stimuli from the Netherlands, and financial injections, some individual initiatives were able to revive local industries such as Javanese batik and Javanese silver smithing.⁴ Notably, the joint efforts were directed especially towards the Javanese decorative arts, which were widely appreciated and admired; industries on the remaining islands, the so-called *Buitengewesten* (the Outer Islands), received considerably less attention.

Isaïc Groneman’s large four-part article entitled *Der Kris der Javaner*, published between 1910 and 1913 in the then authoritative periodical *Internationales Archiv für Ethnographie / International Archives for Ethnography*, is presented here in translation under the title, *The Javanese Kris*, for the first time. Groneman describes in minute detail the forging of a number of blades and the manufacture of the other parts of the kris, and then

places it all in a broader historical and cultural framework. His articles were inspired by a strong interest in how Javanese krisses were forged, but also by his great concern that this craft that he admired so much, was at risk of bleeding to death and disappearing from the face of the earth. Apart from a scientific view, his publication clearly also contained a socio-political view. This combination marks him as a child of his time.

Isaïc Groneman was certainly not the first to pay attention to the kris. This remarkable weapon with its extraordinary variety of forms, complicated symbolism and mythical history had attracted the serious attention of Stamford Raffles during the English interim government of the Dutch East Indies (1811-16). His unsurpassed two-volume work, *The History of Java* (1817), including a survey of forty-one different named forms of kris blades, has withstood the test of time. After Raffles, other important studies appeared, including: A. Hendriks (1842), F.L. Winter (1871), F. Grabowsky (1889), J.D.E. Schmeltz (1890), J. Knebel (1898) and W. Rosenhain (1901).⁵ Each author focuses on one or more aspects of the kris or the forging of East Indian weapons. Upon closer inspection, Hendriks and Grabowsky do not seem to belong to this line-up; their research concerns the weapon production of the sultanate of Banjarmasin in Southeast Borneo. They are important nevertheless because they are the first to dwell extensively on the manual mixed forging technique, the so-called forging with *pamor*, to which Groneman paid particular attention.

Hendriks, an officer in the Dutch East Indian army, was the first to present a short report on how a sabre blade is forged from two iron plates and two *pamor* plates and then polished with stones, oil and a piece of shark skin. Grabowsky offered an eyewitness account of the manufacture of a Malayan dagger from a layer of *besi pamur*, 'pamor iron', between two layers of *besi betul*, 'pure iron'. Winter deserves mention for having written the very first book on the kris. It contains a history based on the Javanese court tradition of the kris models and their smiths or royal designers. Just like Raffles, he presented a survey of known kris blades, but now the number had expanded to fifty-one drawn models. Groneman was to refer gladly to this survey. Winter's publication was written in Javanese and therefore never gained a large readership. He descended from the family of Dutch 'government translators' for the Javanese language at the court of the Susuhunan of Surakarta.

Of all of these authors, Schmeltz, keeper at the ethnological museum in Leiden, was the first to summarize briefly the then extant knowledge on krisses and other East Indian ceremonial weapons in a single article. His study was prompted by his documentation of the magnificent collection of weapons owned by the former Governor-General of the Dutch East Indies, Baron Sloet van de Beele. The Leiden museum had purchased



Inv. Nr. 258 – 2 (RMV)

Origin: Java.

Acquisition: 1881; purchased from L.E. Minden Hang.
Ceremonial kris. Its blade has eleven curves; it is less beautifully decorated and has a *kembang katjang*, a *lambe gadjah*, a *pedjetan* and two blood channels. The *gandja* has teeth (*greneng*) and golden chase work decorated with a foliage pattern. The hilt is made of grey-brown flamed wood, as is the *wrangka*. The silver-covered sheath and the front have leaf and floral shaped chasing. One tip of the *wrangka* has broken off.

Length: 46.4 cm

Inv. Nr. 3139 (WM)

Origin: Central Java.

Acquisition: 1885; donated by
E.E. St. Martin.

Kris with thirteen curves and *pamor*.
The wooden grip is in the shape of a flower bud. The *gandar* has a smooth cover consisting of a gold alloy.

Length: 48.2 cm



Inv. Nr. 2160 - 409a/b (TM)

Origin: Ceribon, North Java.

Acquisition: 1952; donated by the heirs of Mr. W.F.C.C. Pijnacker Hordijk.

Kris with eleven curves and *pamor* with a small golden elephant trunk on the front. The ivory grip takes the form of a stylized elephant. The ring between handle and blade is missing.

Length: 46.5 cm

Inv. Nr. 1 (OvW)

Origin: Yogyakarta, Java.

A *panakawan* kris such as is carried by servants of high birth who are learning the art of officiating as high court dignitaries.

The hilt is in the shape of a *raksasa*. This demon giant and

protector is seen as barbaric. When grown up, such a servant receives his own *kraton*-hilt (*deder*) which is usually shaped like his person. Thus, the *taman ngabehan* is named after Pangeran Ngabeheni, subsequently the Sultan Hamanku Buwana VII. The old blade with its thirteen curves and cloudy rice-patterns as damascene is a masterpiece. The hilt consists of elephant ivory with a gold alloy (*suasa*) *selut* and a silver-plated crown-shaped stem ring (*mendak bejen*). A *wrangka* in the shape of a kidney (*gayaman*) consisting of *pelet ngingrim*-wood; its magic pattern serves the benefit of leaders.

A closed *pendok* (*pendok buntun*) with a *semen*-pattern (to be used by nobility only) is made of high-grade silver.

Length: 49 cm



his collection a few years after his death in 1890. Schmeltz was a scholarly recluse and evolutionist; his theory that the kris was a remnant of an ancient snake cult gained little credence.

In two articles, the administrator Knebel discussed several aspects of Javanese 'krisology' including the traditions of considering krisses as powerful objects, of bestowing honorific titles on them and of measuring them with the thumb or other aids to determine their magical potency and functionality. Knebel's publications coincide most closely with the interests of present-day cultural anthropology, in those days a discipline still in its infancy.

Finally, Rosenhain commissioned a microscopic investigation of the layers of metal of a recently-made kris from Trengganu (Malaysia), and concluded that the pieces of iron that were used, two of which the smith considered and processed as *pamor* material, did not differ essentially in their composition. The visible imperfections of the forging formed the damascene pattern on this kris. The slags remaining between the welded layers of iron were affected by the etching of the blade and changed colour.

J.D.E. Schmeltz's *Indonesische Prunkwaffen (Indonesian Ceremonial Weapons)* was to remain the standard reference work for the kris for a considerable time. In the older documentation of collections in Dutch ethnological museums this early source is invariably given as a reference. After 1910 Groneman's *Der Kris der Javaner* was published and between 1916 and 1918 J.G. Huyser's extensive series of articles entitled *Het vervaardigen van krissen* (The manufacture of krisses) appeared.⁶ Between them, Groneman and Huyser present an almost complete picture of the activities performed by various craftsmen to make a kris. Huyser's work is the most detailed.⁷

However, Groneman's publication on the Javanese kris is the most important, certainly if we look at his historical role in sounding the tocsin for the profession of the *empu*, the Javanese kris smith, and through his passionate attempts – that were doomed to fail miserably – to save the craft from ruin.

Isaïc Groneman (1832-1912) and his experiments with nickel *pamor*

Isaïc Groneman was born in the Dutch town of Zutphen. Having read medicine, he worked for several years as an obstetrician but left for Java in 1858 to practise there as a doctor in various places, lastly in Yogyakarta as personal physician to the sultan. After arriving in the Dutch East Indies, he immersed himself in Javanese culture and published on a large variety of subjects, particularly archaeology and the traditional culture of the

Central Javanese realms: gamelan, *wayang*, Islamic court festivities, the kris, and much more.

Groneman was reputed to be a melancholy man:

'Groneman was... a child of romanticism. This appears from his leaning towards the fierce, the grand, towards the All-embracing and the Eternal; from his exaltation, from his tendency to gloominess, from his predilection for music as the highest form of aesthetic pleasure, particularly that of Beethoven'.⁸

In his later years, especially, the chronically indignant Groneman was accustomed to denounce in plain terms the faulty conditions on Java, especially if it concerned the contrast between Dutch legislation and the daily goings-on in Java. In this light we can perhaps also look upon his efforts with the uncertain survival of the kris smiths as a 'fault' which could and had to be put right.

Dr. Groneman was well over seventy when he began to feel concerned about the deplorable state of kris smithery in Central Java. Between 1904 and 1913, he published a booklet and eleven articles in newspapers and periodicals on the subject.⁹ The largest part of this kris oeuvre does not deal with Javanese krisses as such, although he does report on many important things about these weapons. Rather, he uses them as a specific example of the ebbing away of the centuries-old Dutch East Indian traditions to which he, especially in his later Yogya years, had become very attached. Moreover, he did not confine himself to words. A cultural activist, Groneman was driven to begin a one-man project to save the Javanese kris from extinction.

For Groneman it all had to do with his ultimate concern: the decline of the forging of krisses with what he called 'real' *pamor*. He presented his problem for the first time to readers in 1904 in two issues of the *Java-Bode*, at that time the largest newspaper in the Dutch East Indies. In short, his main argument came down to this:

The *pamor* material for the kris smiths connected to the courts of Yogyakarta and Surakarta originates from an iron meteorite that fell to earth at the end of the eighteenth century in the neighbourhood of the Prambanan temple complex. The meteorite was excavated and transported to the *kraton* of Surakarta. From that time on, the weapon smiths of the Vorstenlanden (the Royal territories) used small pieces of meteoric iron to produce the *pamor* pattern in their krisses, pikes and other status weapons. After etching the blade with acidic substances, it is the small percentage of nickel always present in meteoric iron that causes the characteristic silvery pattern that faintly lights up against a background of

iron or steel that has become darkly coloured by the effect of the acids. However, the supply of meteoric iron, already scarce and expensive, will gradually become exhausted. The petty weapon smiths and their assistants who now and then receive a commission from their noble clients – they are becoming fewer and fewer – are poor and consequently can no longer pay for their raw materials. The Javanese weapon smiths are destitute. By making a kris, they do not earn more than starvation wages. Their trade threatens to become extinct if nothing changes. However, the solution of the problem is quite simple: replace the expensive meteoric nickel iron by cheap nickel originating from other sources since it is the nickel component in the kris that provides the contrast in colour.

This is the gist of his first two articles. The other material that he includes on krisses is all repeated later in the more ambitious *Der Kris der Javaner*, the publication which he announced in the *Java-Bode*. Aside from his remarkable plan to save the forging of traditional weapons on Java by replacing meteoric nickel with another nickel, these short newspaper articles form a small – at that moment probably unnoticed – milestone in the study of the kris. It is here that the role of nickel in *pamor* is extensively described for the first time. Groneman learned about the chemical composition of this Prambanan meteorite when he commissioned the analysis of a piece of it in the laboratory of 's Lands Plantentuin at Buitenzorg (now Bogor). At the same time, he was assured that, in contrast to iron, the nickel constituent of the forged kris blade was resistant to the mixture of arsenic and lemon juice that the weapon smiths applied to their blades in order to bring out the *pamor*.¹⁰

Groneman then mobilized an impoverished *empu*, Karjā di Krāmā from the Paku Alam, a principedom linked to the sultanate of Yogyakarta, to forge using small blocks of pure nickel that he purchased from a Chinese merchant. This nickel was, as he stated, thirty to sometimes even a hundred times cheaper than meteoric iron containing nickel. The result was moderate. The best specimen was a waved blade in which forty-two layers of nickel – the small blocks flattened by the smith – run without 'clots' as *pamor* through the steel. However, Groneman argued that the krisses would be that much more beautiful if his *empu* could work with leaves of nickel of an even thinness.

This, too, he was able to acquire! Through the mediation of Franz Heger, director of the ethnology department of the Naturhistorisches Hofmuseum in Vienna, Groneman received a free parcel of pure nickel leaves from the steel manufacturer Krupp for his innovative experiments.

In a separate booklet that appeared in 1906, Groneman presented his enthusiastic technical report on the forging of a waved kris with *kembang pala*, 'nutmeg flower', an

old and well-known Javanese *pamor*. Through the use of the imported industrial nickel, it was made more clearly visible than ever before.¹¹

The experiment was a success. More than a success! Groneman himself held the view that in a number of respects the new kris was to be preferred above the old specimens, because pure nickel is freely available, can be forged more easily, and as a raw material for *pamor* produces more beautiful patterns and shines more brightly than meteoric iron in which the nickel content is low. More krisses were commissioned.

Thanks to the European nickel, the Javanese art of *pamor* could be resurrected and the smiths would be able to continue their profession. The livelihood of the smiths, their assistants and their families would be saved. According to Groneman, at least. A kris from the first forging sessions with the small Chinese nickel blocks was sent to 'Boeatan', the exhibition and sale room of the 'East en West' society at The Hague, and was purchased by none other than Queen Wilhelmina. Later on, the German duke Johann Albrecht von Mecklenburg, brother-in-law of the Dutch Queen, submitted an order for a sword and three krisses with the new *pamor nèkèl*.

However, all remained quiet. The 'reviving art', as Groneman optimistically summarized the result of his efforts in the title of one of his articles, did not revive. It became a long and vain wait for influential administrators to embrace the Javanese art industries with heart and soul and to show a lively interest in what Groneman had achieved. No one responded. 'Boeatan' in The Hague had always shown a warm interest, but the branch department of 'Oost en West' in Batavia ignored his efforts. And it really had to happen on Java! Only absolutely nothing happened. Groneman grew embittered and he uttered his last distress calls in 1910 in the *Koloniaal Weekblad* and in a pamphlet-like booklet.¹² Desperately he pointed out that both the public and the authorities scarcely appeared to show any interest, by which he meant that no purse had been opened. Karjå di Krāmā was without work. He placed his last hope, as he himself put it, in the effect of his extensive article, *Der Kris der Javaner*, in which he described the entire process once again and through which the importance, the meaning and the history of the kris were to be presented in an international scientific forum. He had already sent a copy of his article to the Governor-General of the Dutch East Indies, and the small blocks and small plates of nickel were bequeathed in his will to the Paku Alam, the sovereign whom Karjå di Krāmā served.

And that was the end of the story. In 1912 Isaäc Groneman, retired and having grown suspicious, and also having endured set-backs in his private life, committed suicide at the age of eighty. The last piece of his multipartite article, *Der Kris der Javaner*, had yet to appear.



Inv. Nr. 360 – 1481a (RMV)

Origin: Surakarta.

Acquisition: 1883; donation from the Koninklijk Kabinet van Zeldzaamheden (Royal Cabinet of Rarities).

Ceremonial kris of the *naga sasra* type. The blade has eleven curves. The *naga* head is larger, without diamond eyes, the body more *en relief*. The blade's upper end below the *gandja* is decorated with large gold leaves. One corner of the *gandja* is curled. Besides foliage, the upper rim is decorated, *en relief*, with flowers. The two large diamonds in the *selut* are missing. The hilt consists of darker-flamed red brown wood. The front of the copper *pendok* is decorated with engraved birds, leaves and foliage. The *wrangka*, in the shape of a ship, is made of flamed yellow-brown wood.

Length: 50 cm



Inv. Nr. 13005 (WM)

Origin: Central Java.

Acquisition: 1907; purchased from J. Schulman.

Kris with *pamor* on a straight blade; the ivory grip has the shape of a seated figure. The cover of the *gandar* is made of a gold alloy and is engraved with floral motifs.

Length: 45 cm



Inv. Nr. A-4044 (TM)

Origin: Madura.

Acquisition: 1920; donated by the Society Natura Artis Magistra.

Kris with seven curves and *pamor*. The top of the base is gold-covered and decorated with granules. The grip has a small, cut-out coat of arms on the front and in it, a motif resembling a crown.

Length: 36 cm



Inv. Nr. 360 – 5158 (RMV)

Origin: Madura.

Acquisition: 1883; donation from the Koninklijk Kabinet van Zeldzaamheden (Royal Cabinet of Rarities).

Ceremonial kris. The blade has nine curves and is very beautifully damascened in the shape of a feather, without a *naga*, but with a *kembang katjang* and a *lambe gadjah*. The upper end of the blade and the *gandja* are decorated with golden foliage. The stem ring and selut are inlaid with a large number of diamonds. The ivory grip has the shape of a figure entirely covered in leaf patterns. At the front and the rear, we see the solar disc and wings, en relief, along the sides. The sheath consists of a single piece of flamed and polished brown wood; the *gandar* is almost entirely covered with gold leaf. The uppermost and lowest part of one side is decorated with leaf patterns en relief, while the other side is decorated with engraved leaf patterns. Around the upper end, a gold band is inlaid with diamonds with a protruding leaf-shaped pattern in the centre. The *wrangka* has the shape of a ship, but the sides are decorated with carved leaf curls.

Length: 49,5 cm



Inv. Nr. 58 (PH)

Origin: Surakarta, Java.

Old kris with a blade named *sepang*. The straight blade has two almost equal points at the base (*gandja*). The *pamor* has the shape of an erupting vulcano.

The rare kidney shape *gayaman gabel* (equally broad and wide) is made of wood with flamed stripes all over it (*pelet kendit wutuh*).

The old style silver *pendok bunton* has a pattern consisting of mountains and forests (*alas-alasan*).

The old style Solo-hilt (*canteng*) is made of striped wood (*kemunig werut*) with beautiful carved masks (*patras*) with a stem-ring of gilt copper and cut stones (*inten*).

Length: 45 cm



Inv. Nr. 14816 (WM)

Origin: Surakarta, Java.

Acquisition: 1919; purchased from A. Sturms-Scheuer.

Kris with five curves. The grip, sheath and cover sheath are made of silver. The parts of the sheath are decorated with engravings and chase work in the shape of floral patterns and an undulating border around the *wrangka*.

Length: 48.7 cm



Inv. Nr. 360 – 5394 (RMV)

Origin: Java.

Acquisition: 1883; donation from the Koninklijk Kabinet van Zeldzaamheden (Royal Cabinet of Rarities).

Javanese kris. The blade has nine curves, with a *kembang katjang* in lieu of a *naga*. The *lambe gadjah*, the *djalu memet* and the front side of the *gandja* are decorated with gold; the *sorsoran* and the *sogokan* are without decorations. The *gandja* forms a separate piece. The stem ring is not inlaid with diamonds and rubies. The grip is made of a lighter brown wood. The front side of the golden *pendok* is also decorated with floral and leaf patterns and green enamel. The *wrangka* is made of light-brown wood, in the shape of a ship; one end is damaged. Once owned by a Regent. Length: 44 cm

Groneman and his importance to the study of the Javanese kris

If Isaïc Groneman had not planned to resuscitate an almost extinct Javanese craft almost a century ago, *Der Kris der Javaner* would most likely not have been written. The step-by-step report of the forging of a number of blades with different *pamor* patterns, the description of the tools used and the mention of each and every detail of the entourage in the smithy and the technical and symbolic actions of the smith, confer on this article the distinction of being the real beginning of the study of the kris. It is true that Grabowsky preceded Groneman in describing the forging of a Banjarese dagger with simple *pamor*, but his short article remained obscure. Groneman, as a long-time resident in Yogyakarta and closely linked to the court of the sultan, enjoyed all facilities and cooperation for his tests, both from Javanese courtiers and from Dutch civil servants. He could take his time and prepare everything properly. That his cultural revival project would later be carelessly shrugged off, even end in personal tragedy, does not take away from the fact that the detailed observations that he reproduced as a field worker – for that is what he was – were pioneering. One could compare his report on the forging of *pamor*, for instance, with the first exact description of the no-less complicated batik process, of which, until then, one knew only the visible end product. For that reason alone it is worth producing an English edition of the first, technical part of Groneman's article.

However, it is not a smooth read. Groneman is not what one would call an enjoyable narrator. His dry reports on the forging process demand the reader's concentration. The same goes for all the other matters he deals with in relation to the kris. He discusses the traditional and the new *pamor* metals and alloys he tested (including iron-containing nickel from bicycle frames); the forms of the kris, including the above-mentioned list by N. L. Winter from 1871; all the separate parts that are added to a blade in order to complete a kris; the mythical smiths and historical sovereigns pertinent to the history of the kris; and finally he adds a long list of indigenous technical terms. Groneman composes his text like an enumeration and an inventory, sometimes almost in staccato. In addition, his text is excessively larded with the Javanese names for all kinds of things, often in the two variants of high and low Javanese, which does not make for easy reading.

Groneman appears from this publication to be a perfectionist, afraid to overlook something, certainly for the international group of ethnologists and museum keepers consulting the *Internationales Archiv* and to whom he had something important and painful to tell about a vanishing, venerable craft, desperately requiring remedial attention.

As noted, no one paid any attention, with the tragic consequence mentioned above. He was spared the reaction from J. A. Loebèr jr., one of the Dutch experts in the field of Dutch East Indian craft techniques, because it was published several years after his death. A great lover of the kris – the *traditional* kris, to be sure! – he remarked in a careless moment on Groneman's results:

*'...I can understand that Javanese of good standing could not accept this novelty right away. The Javanese kris is to be admired for its decent character and for its subtle variations of colour. With stronger variations, the kris becomes un-Javanese.'*¹³

The *pamor* experiments of Isaïc Groneman did not stand on their own. They were a consequence of Groneman's idealistic and conservative-romantic view of the world in which he lived and of which he was a part: the Javanese sultanates, a traditionalistic enclave that, more than any other part of Indonesia, clung to the old ways. Krisses have been manufactured in many regions of the Dutch East Indies for centuries, but nowhere – although the island of Bali comes close – is the kris so embedded in a mutually-connected whole of ritual prescriptions and acts, ceremonies, mythical backgrounds and epic poetry as in Central Java. In the Javanese *kraton*, there are manuscripts recording genealogies of legendary weapon smiths that go back to early centuries in which no mention of the kris is to be found. Groneman, however, borrowed from the genealogies, as many others after him have done, with very little critical comment, as if they were primary sources demonstrating or proving something, instead of basic raw material deserving scientific investigation of a specific nature.¹⁴

Groneman was a pioneer in the study of the kris, but after almost a century, we must conclude that this was in part for the wrong reasons. His actions, his publications and his cry for attention originated from a consciously short-sighted vision of the history of Javanese *pamor* forging and, even more essentially, from his blindness to the rapid changes that were taking place in the Dutch East Indies.

With respect to *pamor*, Groneman knew full well that, as a combat and status weapon, the kris was indigenous to a large part of the archipelago. In addition to Java, during the course of the centuries this dagger had been manufactured in countless numbers on Madura, Bali, Lombok, Sumbawa, Sulawesi, Sumatra and along the coast of Borneo. On all of these islands, many kris blades were traditionally forged from, or possibly with the addition of, iron containing nickel. The origin and the history of Indonesian forging with *pamor* is still a subject of discussion, but it is certain that in past centuries the Chinese and the sea-faring Buginese from South Sulawesi played a crucial role in many



Inv. Nr. 5041-1a/b (TM)

Origin: Yogyakarta, Central Java.

Acquisition: 1986; donated through H.R.F. van der Schuyt.

Kris with nine curves and *pamor* work. The front of the *gandik* has a small gold floral pattern. The grip rests in an open bowl of gilded silver with many small diamonds.

Length: 49 cm



Inv. Nr. 71 (PH)

Origin: Tegal, Java.

A very large, old, straight blade with vague *pamor* work; the pattern is perhaps 'broken hair' (*adeg rambut*).

The remarkable *wrangka* is in the shape of a lotus flower and is made of *kemuning* wood. The kris itself is mounted on a hilt depicting Dursasana, an evil *wayang*-king. The base consists of a silver *selut* with, beneath it, a rare cage-shaped stem ring. The metal parts are made of bronze, once silver plated. The sheath consists of another species of wood.

Length: 61 cm

places by importing iron bars for the Indonesian weapon smiths. This iron was smelted and roughly forged from an ore with a *natural* nickel content. The origin of this iron-nickel ore was Luwu, a region in Central Sulawesi. The tribal Toraja reduced the ore in simple smelting ovens.¹⁵ The use of this *pamor* iron from Sulawesi had been mentioned at the beginning of the nineteenth century by the two best-known writers on Java from the English interim government of the Dutch East Indies: Raffles, Governor-General, as already mentioned, and Crawford, Resident of Yogyakarta.¹⁶ In addition, the above-mentioned predecessors of Groneman, Hendriks and Grabowsky, state explicitly that the weapon smiths of South Borneo made use of a special iron from Sulawesi.¹⁷ Groneman also repeatedly discussed this so-called *pamor luwu* in his articles. But due to the extremely low content of nickel – a mere 0.4% – he considered *pamor luwu* inferior to the meteoric *pamor prambanan*. The ore containing 4-5% nickel produced a much finer result for the *pamor* smith. For Groneman, one thing was irrefutable from then on, namely, that the meteoric iron from Central Java was the *real* unsurpassable raw material for edged weapons with *pamor*. In other words, the true Javanese kris contained layers of meteoric nickel iron.

By translating this absolute personal view into an axiom, he shut his eyes to the simple fact that countless Javanese krisses from the Majapahit period had been forged without meteoric iron but with clearly visible *pamor* patterns. Pattern-welding, as the Briton Rosenhain pointed out, is independent of the presence of meteoric iron, and *vice versa*: meteoric iron is not *per se* Groneman's real *pamor* from which a good kris is derived. The Prambanan iron with its high nickel content did yield the most beautiful and clearest effects, and it was a superior base material for the Javanese *pamor* smith by far. However, in the long history and tradition of the Indonesian forging of krisses, working with meteoric iron was nothing more than a local incident lasting scarcely more than a century. The historical metallurgist Bronson rightly recognizes Groneman as a most important pioneer in the study of the kris, but argues against his standpoint that Javanese krisses and meteoric iron form a necessary combination. Only a small percentage of all krisses, mainly the expensive Javanese court krisses or *kraton* krisses, contains meteoric nickel.¹⁸

The strict connection that Groneman posited between krisses and meteoric iron is responsible for the fact that many researchers, writers and museum workers after him adopted this viewpoint. Scores of kris documentations in the West European museum collections, and certainly in the Dutch museums where *Der Kris der Javaner* was long consulted as a standard work, almost always mention that Javanese kris blades, even the

most ordinary specimens, have been forged from 'a combination of iron or steel and meteoric *pamor* iron'.

We will not dwell upon it at length here, but the uncritical acceptance of Groneman's strict connection between forging techniques and meteoric iron led to a derailed, popular and orientalist development of theories departing from such points as a 'sacred marriage between heaven and earth'. These have encouraged the Western mystification of Javanese culture for generations.

Isaac Groneman's experiments with imported nickel in order to preserve and evaluate the technique of forging the kris and *pamor* did not prove viable. The cause of the disappearance of the Javanese kris was not the slow exhaustion of the supply of meteoric iron, the *pamor prambanan*, or its high price, but the advance of modern times throughout all of colonial South East Asia. The twentieth century was the last in which edged weapons in almost the entire archipelago were made. In many regions, the everyday attack or defense weapon had been the inseparable companion of every man. Everywhere, after the last colonial wars and campaigns and the consequent introduction of the Pax Neerlandica, they became unnecessary. In the realms of Palembang, Banjarmasin, Aceh, Boni, Bali and Lombok, the forging of weapons went into decline from the moment that the sultans or rajas were subjugated, and their realms annexed by the Dutch East Indian colonial state. In a number of regions, a ban was placed on the carrying of cutting and stabbing weapons. On Java, the historical turning point was the end of the five-year-long Java war. The rebellious prince Diponegoro, defeated and detained, had to hand his kris over to the Dutch authorities in 1830. This personal disarmament, fraught with historical symbolism, meant a certain end to the Javanese kris as a combat weapon. As a ceremonial weapon, as part of the costume, as sacred heirloom and as a protective personal amulet, the kris remained in existence. It is remarkable, that it was in this final period of their existence that krisses were forged using iron containing nickel from the Prambanan meteor. Instead of arguing that this material was the only *real pamor*, Groneman should have realized that it was the *final pamor*, extremely suitable for prestigious princely showpieces of which a considerable number were made in the nineteenth century.

Even within the walls of the *kraton*, knowledge about the kris was disappearing quickly! In the preface of the article presented here in translation, Groneman states:

'At this moment the art has declined to such an extent that many important Javanese, even several regents with whom I am acquainted, no longer carry really noble weapons in their rather

plain kēris sheaths; while many a prijahi, even of high birth, had no idea whatsoever how such a kēris is forged, before my research into this subject informed him.¹⁹

Aside from the question of whether most of the highly-placed Javanese had, themselves, ever explored the activities of the weapon smiths in their humble village smithies to any depth, the writing was on the wall: there were mediocre weapons in mediocre sheaths in the belts of *prijahi*, the members of the Javanese court nobility. This nobility had become greatly impoverished in the meantime, and forced to live off their former fame. They were in danger of having to play a minor ceremonial role in the Dutch colonial system. The craving for modernization in these circles – Groneman must have seen and known it – went with the abolition or replacement of the old status symbols, krisses and gamelan ensembles were sold, carriages and coaches were replaced by cars and the old-fashioned sultans' attire was replaced by more modern costume designs based on Western styles.

In addition, regional surveys of industrial centres invariably presented a gloomy image of the state of affairs. According to a report in 1893, the occupation of the kris forger was dying out and only one good smith continued to work in parts of the former Residentie Banjoemas in Central Java.²⁰ In the other parts of the Dutch East Indies, the situation was no different. Even Groneman's survey of the few weapon smithies and active weapon smiths still existing in the Dutch East Indies was alarming.²¹

On the British peninsula of Malacca, traditionally also a 'kris country', the same developments were observed during these years. The knowledge of the method of ritually purifying a kris blade and of etching it in order to produce the *pamor* pattern had already almost disappeared.²² The indigenous 'kris science', the whole of the traditional views and use surrounding the kris, according to the renowned ethnologist W.W. Skeat in 1900, '*has lost its former importance, and become almost a matter of historical interest*'.²³

This tendency continued undiminished everywhere. The makers of weapons and the manufacturing of krisses were disappearing from the scene at great speed. A sympathetic Governor-General of the Dutch East Indies charged the civil servant, J.E. Jasper, with the task of paying attention to Groneman's complaint.²⁴ In subsequent years, he dealt extensively with this matter at least twice, especially in his sublime five-volume survey of the Dutch East Indian handicraft industry, of which the component on the Indonesian kris was to succeed *Der Kris der Javaner* in importance.²⁵

If Groneman looked over the walls of the *kraton* of Yogya, he remained blind or did not arrive at the correct, realistic conclusions. Time and again he pointed to the rapid

decline in the forging of krisses throughout the entire Dutch East Indian archipelago, in particular in the Javanese Vorstenlanden (Royal territories), but he closed his eyes to the real cause. He placed Central Java under a glass bell as a timeless cultural reservation and failed to observe the growing number of cracks in the glass. The new spirit of the times and the modernizing processes that characterized the Dutch colonial twentieth century made a silent end to time-honoured local art and handicraft traditions. The existence of the kris was slowly but surely being erased as a general Indonesian cultural artifact, but Groneman completely refused to admit this.²⁶ His tragedy was that by importing small sheets of European nickel he thought that he could stop a number of irreversible cultural changes, that he refused to recognize as such. He did not realize that he was blowing against the wind.

Despite Groneman's vain attempts to bring time to a standstill by preventing the extinction of the Javanese kris, his *Der Kris der Javaner* is a monumental contribution to knowledge, all the more so if we place it beside the writings of his predecessors, including the illustrious G.P. Rouffaer who, shortly before Groneman's publication, pointed out that knowledge of the technique of forging a kris was lacking and needed to be examined.²⁷ *Der Kris der Javaner* provided the foundation for further inquiry. However, the real scientific synthesis did not come until 1938 and 1940 when the Leiden museum anthropologist, W.H. Rassers, published three articles. He discontinued the standard enumerations of shapes of blades, *pamor* patterns and the variations of handles and sheaths, and brought the kris into an organic connection with the *wayang*, the Javanese shadow theatre, and other elements of Javanese culture in order to understand the underlying, scarcely visible basic structure of Javanese society.²⁸ It was a completely new approach. However, Rassers could not have carried out his scientific work without Isaac Groneman and the other Dutch authors on the kris who owed tribute to *Der Kris der Javaner*.

David van Duuren

Notes

- 1 Important surveys include J.A. Loebèr jr., *Geïllustreerde beschrijvingen van Indische kunstnijverheid*, 7 vols., Haarlem and Amsterdam, 1903-1916, also known under the collective title *Techniek en Sierkunst in Nederlandsch-Indië*; J.E. Jasper & M. Pirngadie, *De inlandsche kunstnijverheid in Nederlandsch Indië*, 5 vols., 's-Gravenhage, 1912-1930; *Catalogus van 's Rijks Ethnographisch Museum*, 23 vols., Leiden, 1909-1932, of which 16 volumes were written by H.H. Juynboll, and G.P. Rouffaer, *De voornaamste industrieën der inlandsche bevolking van Java en Madoera*, 's Gravenhage, 1904.

- 2 For example, the term art appears for the first time in the exhibition catalogue *Indonesian Art: A Loan Exhibition from the Royal Indies Institute*, New York, 1948 and again in F.A. Wagner, *Indonesia: The Art of an Island Group*, London, 1959. The Dutch version (1949) of the latter book by the same author was entitled *Sierkunst in Indonesië*.
- 3 'Oost-Indische wapens, triomf van den boeddhistischen-civaïstischen godsdienst', in: *Woord en Beeld* 5, 1900, p. 455.
- 4 See for batik, S. Legêne & B. Waaldijk, 'Reverse Images – Patterns of Absence: Batik and the Representation of Colonialism in the Netherlands', in: I.C. van Hout ed., *Drawn in Wax. 200 Years of Batik Art from Indonesia in the Tropenmuseum Collection*, Amsterdam 2001, pp. 34-65; and for silver, W.H. Kal, *Yogya Silver: Renewal of a Javanese Handicraft*, Amsterdam, 2005.
- 5 A. Hendriks, 'Iets over de wapenfabricatie op Borneo', in: *Verhandelingen van het Bataviaasch Genootschap van Kunsten en Wetenschappen* 18, 1842, pp. 1-30; F.L. Winter, *Serat bab pratelanipoen dapoer doewoeng mawi kawoedjoedan gambar 51 idji*, Soerakarta, 1871; F. Grabowsky, 'Negara, ein Industrie-Centrum in Südost-Borneo', in: *Globus* 55, 1889, pp. 90-92; J.D.E. Schmeltz, 'Indonesische Prunkwaffen: ein Beitrag zur Kunde des Kunstgewerbes in Indonesien und der ethnologischen Bedeutung der Kris', in: *Internationales Archiv für Ethnographie* 3, 1890, pp. 85-118; J. Knebel, 'A propos d'armes et d'autres objets désignés par le Javanais sous les noms de Kjai, Njai, Poen et Si, Kaämpoehan et Kasiat. Croyances populaires et traditions', in: *Tijdschrift voor Indische Taal-, Land- en Volkenkunde* 40, 1898, pp. 239-286; J. Knebel, 'Sur la mensuration des armes chez les Javanais', in: *Tijdschrift voor Indische Taal-, Land- en Volkenkunde* 40, 1898, pp. 317-324; J. Rosenhain, 'Notes on Malay Metal-Work', in: *Journal of the Royal Anthropological Institute* 31, 1901, pp. 160-166.
- 6 In: *Nederlandsch-Indië Oud en Nieuw* 1, 1916-1917, pp. 235-236; 546-561; 2, 1917-1918, pp. 26-37; 102-114; 326-336; 357-366; 411-417; 439-447.
- 7 Only the earliest contributions are mentioned here. The important fifth volume of Jasper & Pirngadie, *De bewerking van niet-edele metalen (koperbewerking en pamorsmeedkunst)* – see note 1 – which deals extensively with krisses, was not published until 1930. For a more complete survey of the smaller or later publications on krisses, see: D. van Duuren, *Krisses: A critical Bibliography*, Wijk en Aalburg, 2002.
- 8 R. Nieuwenhuys, *Oost-Indische Spiegel*. Amsterdam, 1978, p. 203.
- 9 For the titles see D. van Duuren, *Krisses, a critical Bibliography*, pp. 50-55.
- 10 It seems to have been already announced in the *Natuurkundig Tijdschrift voor Nederlandsch-Indië* of 1867 that the Prambanan meteorite contained nickel. If Groneman had been familiar with this article it is unlikely that he would have had a fragment of the meteoric iron tested in the laboratory of the botanical gardens.
- 11 *De vorderingen der pamor-smeedkunst (metoor- en nikkel-pamor)*, Soerabaja, 1906.

- 12 *Pamor-wapens*, Semarang, 1910; 'Wat er van de pamorsmeedkunst worden zal', in: *Het Koloniaal Weekblad* 10, nr. 35, 1910, pp. 4-5.
- 13 *Houtsnijwerk en metaalbewerking in Nederlandsch-Indië* (Geïllustreerde beschrijvingen van Indische kunstnijverheid VII). Amsterdam, 1916, p. 59. The only unconditional support for Groneman's use of pure nickel is found in M. Storm van 's-Gravesande, 'Het smeden van edele wapens met pamorversiering', in: *Het Nederlandsch-Indische Huis Oud en Nieuw* 1-2, 1913-1914, pp. 135-141, but this article was published after Groneman's death.
- 14 From Raffles, Winter and Groneman onwards, up to the present day, writers on the kris have tried to reduce the large number of kris models to manageable lists of shapes from which straight and undulating blades can be determined and named, as if they were natural species. Indonesian authors especially continue this tradition. The basis for this seemingly necessary standardization and this desire for typification – oral tradition, manuscript sources, or deductions made in one's study? – is not often made clear. Moreover, these lists that derive somewhat vaguely from the kris models of Yogyakarta and Surakarta do not take into account, in any way, the wider regional Javanese differences. The fact that there are as many typologies as researchers, and that they will never agree completely with one and other, may prove that these lists are of little use.
- 15 B. Bronson, 'Terrestrial and Meteoric Nickel in the Indonesian Kris', in: *Journal of the Historical Metallurgy Society* 21, 1987, p. 8.
- 16 Neither Raffles in his *The History of Java*, nor J. Crawfurd in his three-volume *History of the Indian Archipelago* (Edinburgh/London, 1820) mention the use of meteoric nickel iron for forging kris blades.
- 17 Hendriks, pp. 8-9; Grabowsky, p. 91.
- 18 Bronson, p. 11.
- 19 'Der Kris der Javaner', in: *Internationales Archiv für Ethnographie* XIX, 1910, p. 91.
- 20 A.M.K. de Does, 'Toestand der nijverheid in de afdeeling Bandjarnegara', in: *Tijdschrift voor Indische Taal-, Land- en Volkenkunde* 36, 1893, p. 62.
- 21 'Der Kris der Javaner', in: *Internationales Archiv für Ethnographie* XIX, 1910, pp. 199-200.
- 22 L. Wray, 'On the Malay method of colouring kris and other blades with arsenic', in: *Perak Museum Notes* 3, *Malay Industries* 1, Kuala Lumpur, 1909, pp. 40-44.
- 23 W.W. Skeat, *Malay Magic*, London, 1900, p. 532.
- 24 'Der Kris der Javaner', in: *Internationales Archiv für Ethnographie* XIX, 1910, p. 137.
- 25 In *De bewerking van niet-edele metalen (koperbewerking en pamorsmeedkunst)*, published in 1930, the fifth and final volume of *De inlandsche kunstnijverheid in Nederlandsch Indië*. All the volumes of this series were produced with the Javanese Mas Pirngadie as co-author. Jasper wrote the text and Pirngadie made the drawings.
- 26 As stated, the Javanese kris has completely disappeared as a general, cultural attribute considered to be indispensable. However, krisses are still being manufactured. Well-known are the series of

photographs of the forging of a kris in G. & B. Solyom, *The World of the Javanese kris*, Honolulu, 1978, pp. 8-9 and in M. Sachse, *Damascus Steel: Myth, History, Technology, Applications*, Düsseldorf, 1994, pp. 112-115. However, all krisses are at present forged for special reasons, such as gifts for business partners or as precious objets d'art. The bulk goes to dealers who sell them to collectors all over the world. Fancy replica krisses and plainly inferior products flood the tourist market. Kris handles, too, continue to be carved, but never come in contact with a blade.

Old krisses on Java are often still the centre of esoterically-minded study groups. The fact, however, that krisses have lost their time-honoured cultural meaning is proven by the fact that they were massively discarded during the nineteenth and certainly during the twentieth century, which is the reason why there are now so many krisses found in the collections of museums and private persons. Today the kris is marginalized and vulgarized as a tourist object. The last fatal blow is being delivered at present by the influence of fundamentalist Islam, both in Indonesia and Malaysia. See F.A. Noor, 'From Majapahit to Putrajaya: the Kris as a Symptom of Civilizational Development and Decline', in: *South East Asia Research* 8, nr. 3, 2000, pp. 239-279.

- 27 G.P. Rouffaer, *De voornaamste industrieën...*, p. 107.
- 28 'Inleiding tot een bestudeering van de Javaansche kris', in: *Mededeelingen der Koninklijke Nederlandsche Akademie van Wetenschappen, Afd. Letterkunde, Nieuwe Reeks*, deel 1, nr. 8, 1938, pp. 425-483; 'On the Javanese kris', in: *Bijdragen tot de Taal-, Land- en Volkenkunde van Nederlandsch-Indië* 99, 1940, pp. 501-582; 'Over eenige Javaansche classificaties der krissoorten', in: *Supplement op het Triwindoe-Gedenkboek Mangkoe Nagoro VII*, Soerakarta, 1940, pp. 117-126.

Inv. Nr. 360 – 5819 (RMV)

Origin: Java.

Acquisition: 1883; donation from the Koninklijk Kabinet van Zeldzaamheden (Royal Cabinet of Rarities).

Kris (*sampana*) with a straight blade, beautifully damascened with a cloud pattern. At the top, a crowned golden *naga* with an open mouth and diamond eyes. On the *gandja*, a triangular leaf-shaped golden decoration. The upper rim is entirely covered with gold. The stem ring is inlaid with emeralds. The grip is made of dark-brown, polished wood. The copper *pendok* has a front side consisting of gold, engraved foliage, but no enamel.

Length: 47 cm



Inv. Nr. 80 (PH)

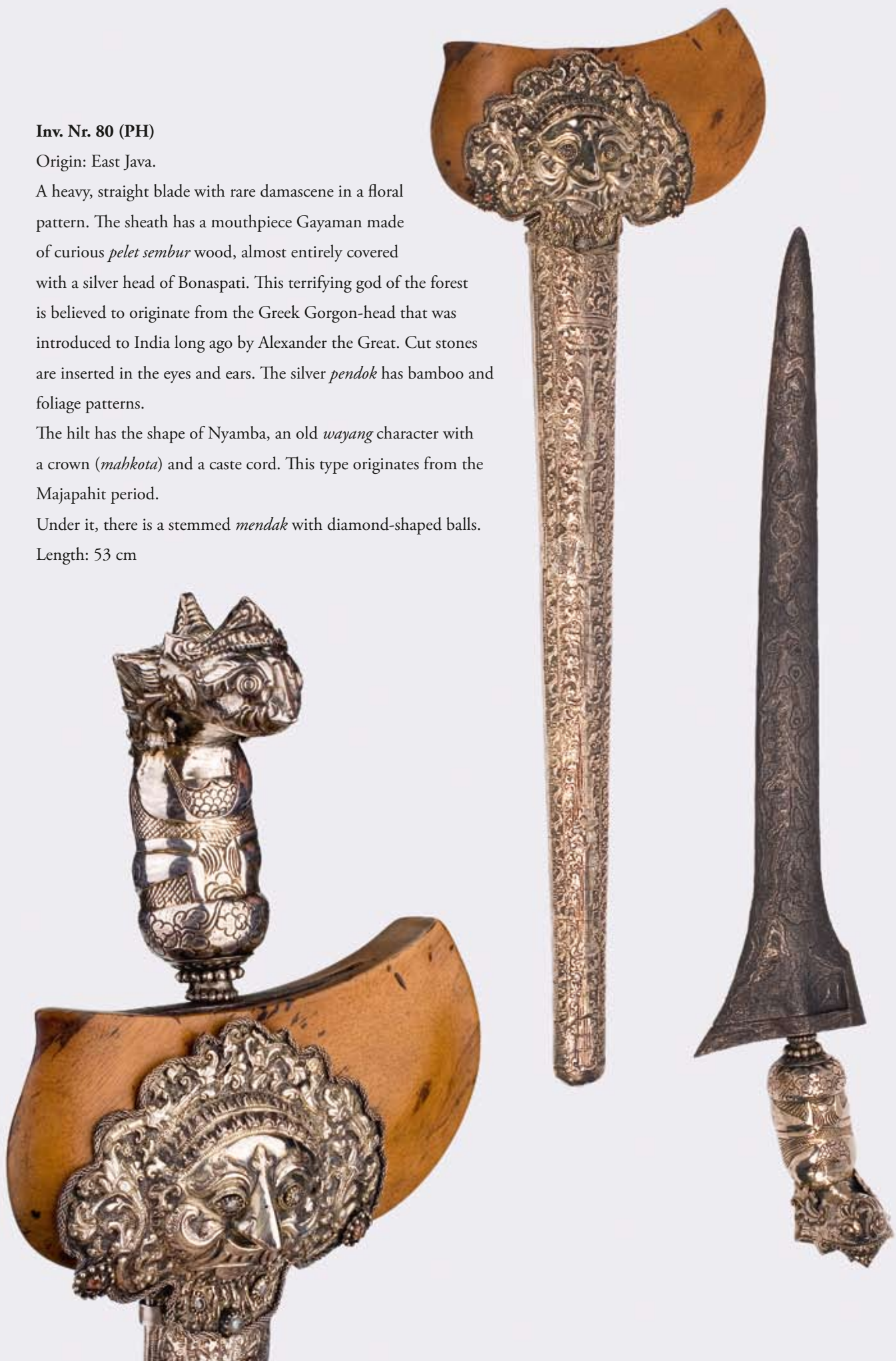
Origin: East Java.

A heavy, straight blade with rare damascene in a floral pattern. The sheath has a mouthpiece Gayaman made of curious *pelet sembur* wood, almost entirely covered with a silver head of Bonaspati. This terrifying god of the forest is believed to originate from the Greek Gorgon-head that was introduced to India long ago by Alexander the Great. Cut stones are inserted in the eyes and ears. The silver *pendok* has bamboo and foliage patterns.

The hilt has the shape of Nyamba, an old *wayang* character with a crown (*mahkota*) and a caste cord. This type originates from the Majapahit period.

Under it, there is a stemmed *mendak* with diamond-shaped balls.

Length: 53 cm





Inv. Nr. 24449 (WM)

Origin: Madura.

Acquisition: 1919; purchased from Van Veen.

Kris with seven curves; the lowest part of the blade and the entire base are inlaid with golden floral motifs, including a lion on one side of the base.

The ivory grip consists of a stylised figure, built up from floral motifs and uniform epaulettes. The head resembles that of a lion.

Length: 49 cm





Inv. Nr. 5442-1a/b (TM)

Origin: Surakarta, Central Java.

Acquisition: 1992; donated by G.J. de Jong. Kris with eleven curves. The front is forged out to form a snake head. *Pamor* work. Some traces of gold ornaments still visible.

The grip rests in an open silver bowl decorated with many small pieces of quartz. The scabbard has a dilapidated cover sheath made of copper.

Length: 50 cm



Inv. Nr. 360 – 5822 (RMV)

Origin: Java.

Acquisition: 1883; donation from the Koninklijk Kabinet van Zeldzaamheden (Royal Cabinet of Rarities).

Ceremonial kris. The blade has eleven curves and is damascened with a cloud pattern; there are two short blood channels. The part between the *lambe gadjah* and the *djalu memet* has a golden leaf decoration. The *gandja* is beautifully decorated with golden flowers, leaves and foliage. The stem ring is made of gold and the hilt consists of dark-brown flamed wood in the usual shape. The *gandar* is entirely covered in gold; on the front side, it is beautifully decorated with birds, plants etc. depicted *en relief*. The *wrangka* is made of flamed dark-brown wood in the shape of a ship.

Length: 43 cm

THE JAVANESE *KĚRIS*

Dr. I. Groneman

FOREWORD

The undoubted decline of Javanese industry also threatens the existence of the highly developed art of the forging of noble weapons, including, above all, the ceremonial krisses (*kěris*) and lances.

Since the demand for these weapons has decreased, the artists producing them have become scarce, too.

This art is still practised in only the two Sultanates, and the royalty, albeit not extremely rich but nonetheless well-to-do, still employs one or more *ěmpu* (smiths) who live from their craft, or derive their own livelihood and that of their family from it in part.

Moreover, the supply of the 'real' *pamor*, the noble alloy of meteoric iron kept only in the *kraton* of Surākārta, which they can work admirably into the steel or iron according to previously desired lines, is decreasing swiftly and will soon be completely exhausted.

The Javanese have tried various other materials as a substitute for meteoric iron, but have found nothing that can replace the rare and expensive 'real' *pamor* without disadvantage.

Science has now taught us that the high quality of meteoric iron – it remains white for a long time, while steel and iron turn black when treated with arsenic – is thanks only to the trace of nickel found in it. This leads to the assumption that the same nickel in other and richer alloys, or indeed in its pure state, when mixed in the same proportions with iron or steel (as in bicycle steel), would show the same usefulness and would produce

even brighter and more beautiful designs than the meteoric iron from Parambanan. In this metal, we have found a means to not only save the art of forging *pamor* from regrettable decline, but perhaps also to allow it to flourish as never before.

The art has declined to such an extent, now that many important Javanese, even several regents with whom I am acquainted, no longer carry really noble weapons in their rather plain *kěris* sheaths, while many a *prijahi*, even of high birth, had no idea whatsoever how such a *kěris* is forged, before my research into this subject made this information available.

The decline of the prosperity of the Javanese people is also partly linked to the decline of this branch of applied art.

I would like to urge my compatriots in the Dutch East Indies and Europe to support those whose goal it is to open up this source of people's development and well-being, to allow it to thrive. Help us to revive this art. Decorate the walls of your rooms with one or more precious products of authentic Javanese art. The 'East and West' Society in The Hague will surely offer its assistance just as eagerly and unselfishly as the author of this essay is prepared to do.

In closing, a word of thanks is due to Resident J.R. Couperus, without whose energetic assistance it would have been much more difficult for me, a private citizen, to lay my eyes on so many objects, or my hand on so many manuscripts, from the *kraton* of the Sultans or the *dalēm* of other persons of high standing.

Jogjakartå, 15 January 1905.



Inv. Nr. 360 – 8082 (RMV)

Origin: Java.

Acquisition: 1883; donation from Governor-General Baud (Governor-General of the Dutch East-Indies, 1833-1836).

Ceremonial kris. The blade has thirteen curves, beautifully damascened in wave and cloud patterns, with a *kembang katjang*, a *lambe gadjah* and a double *djalu memet* with two blood channels and with teeth on the *gandja* and the *sorsoran*. Along the two cutting edges on the top half, we see a golden decoration consisting of foliage. Along the blood channels, in the *pedjetan* and on the *gandja*, there is an Arabic inscription in golden letters (Koran verses).

On the other side, too, such verses are found. Apart from golden foliage, the upper rim of the *gandja* is decorated with six large and six small diamonds. The stem ring (*mendak*) has no diamonds. The grip (*ukiran*) is made of lighter-brown, polished wood. The sheath is made out of a single piece of light-brown wood; the *gandar* has a largely gold *pendok*; its front side and the upper rim of the rear side show engraved foliage. The *wrangka* is in the shape of a ship.

Length: 51 cm



Inv. Nr. 360 – 8084 (RMV)

Origin: Java.

Acquisition: 1883 from the Koninklijk Kabinet van Zeldzaamheden (Royal Cabinet of Rarities).

Ceremonial kris with an antique blade that has eleven curves; the entire upper part is decorated with golden flowers and leaf tendrils, as are the *gandja* and the *gandik*. In lieu of an elephant, we see a *naga* crowned in gold; its body stretches along the entire blade (*naga sasra*) and several traces show that it was originally entirely gilded. The golden stem ring is decorated with diamonds. The grip has the usual shape and is made of light brown wood with diagonal dark stripes. The sheath is made of a single piece of light brown polished wood; the *gandar* is almost entirely covered with a *pendok* of flat gold foil; the *wrangka* has the shape of a boat, one tip of which is slightly damaged.

Length: 46.5 cm



Inv. Nr. 26553 (WM)

Origin: Madura.

Acquisition: 1928; purchase.

Kris with a straight blade and *pamor*. The ivory grip has symbols that are characteristic of Madurese grips, such as the horse looking backwards. The sheath, with a rare notched rim on the bottom of the mouth, is kept in a casing made of cotton velvet that is embroidered with gold-coloured metal thread.

Length: 49.4 cm