Banjarmasin Diamond: War Booty from Borneo in Amsterdam

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ABSTRACT: The 38.23 ct Banjarmasin diamond in the collection of the Rijksmuseum in Amsterdam plays a questionable role in the history of the Dutch occupation of southern Borneo. Confiscated from the Sultanate of Banjarmasin, the original 70+ ct rough diamond arrived in the Netherlands in 1862. This marked the beginning of a 40-year-long political debate on the fate of this former piece of state regalia, as well as consideration of whether or not to cut and sell it. It was eventually faceted in 1870, but efforts to sell it were unsuccessful, and in 1902 it was finally transferred to the Rijksmuseum as a permanent loan from the Ministry of Colonies. Past publications have focused mainly on the colonial history of the diamond, and its properties have not been studied in detail until now. As one of the few large diamonds found in the alluvial deposits of Kalimantan, the results of this study contribute to the recognition of Borneo as an historically small but important diamond source.

The Journal of Gemmology, **38**(7), 2023, pp. 662–677, https://doi.org/10.15506/JoG.2023.38.7.662

The Banjarmasin diamond (Figure 1) is one of the largest diamonds found in southern Borneo (i.e. today's South Kalimantan, Indonesia). It has been in the collection of the Rijksmuseum in Amsterdam since 1902 and is the only unset cut gemstone on permanent display there. It remains a symbol of the controversial history of Dutch colonial rule in this part of modern Indonesia. In its original rough octahedral form, the diamond was considered to have great personal meaning to Sultan Adam Al-Watsiq Billah (Figure 2) and his family (Müller 1839–1844, 1857). The death of the sultan marked the beginning of the Banjarmasin War (1859–1864), a conflict over succession during which the Dutch colonial government decided to dissolve the century-old sultanate (van Rees 1865a, b; Stutje 2022a, b). The diamond and other 'voluntarily' ceded regalia were sent to the Governor-General of Batavia (Jakarta) in June 1860 and, for unknown reasons, the diamond was sent to Amsterdam in December 1861.[1]

When the diamond arrived in the Netherlands aboard the war steamer *Zr. Ms. Ardjoeno* four months later, it merited special mention in local newspapers, and its value was estimated at 400,000 guilders (Anonymous 1862).[2] In the meantime, the Dutch government was not sure what to do with this rough diamond. Plans to offer it to King William III of the

Figure 1: The Banjarmasin diamond (38.23 ct; approximately 21.86 × 17.37 × 13.86 mm) was cut from a 70+ ct octahedral crystal that was confiscated from the Sultanate of Banjarmasin in 1860 and reportedly came from southern Borneo. It currently resides in the Rijksmuseum, Amsterdam (inv. no. NG-C-2000-3), where it is on permanent display. Photo by J. C. Zwaan.

Figure 2: Sultan Adam Al-Watsiq Billah (1782–1857) owned the original rough Banjarmasin diamond. His death precipitated the war that resulted in the transfer of the diamond to the Dutch colonial government. *Portrait of Sultan Adam Al-Watsiq Billah* by Auguste van Pers, circa 1844. Leiden University Libraries, Collection of the Royal Netherlands Institute of Southeast Asian and Caribbean Studies (inv. no. 36A143).

Netherlands (1817–1890), either as a personal gift or as part of the state regalia to be placed in the coronation crown, fell through. One reason was that the cutting costs were deemed too high.[3] Then the diamond was offered to the Museum of Natural History in Leiden, but they declined because it did not fit into their collection and they could not properly secure it.[4] Between 1869 and 1898, three attempts to sell it failed, first in its rough state and later as a cut stone. In August 1902, the Banjarmasin diamond was finally transferred to the Rijksmuseum as a permanent loan from the Ministry of Colonies. The government of the Netherlands is still the official owner today (Stutje 2022b).

Since 2019, the Banjarmasin diamond has been one of the objects under discussion in a research project focusing on the fate of colonial objects in Dutch museum collections. In March 2022, the Rijksmuseum, in collaboration with the NIOD Institute for War, Holocaust and Genocide Studies, and the National Museum of World Cultures, presented the results of this research in an initiative titled 'Pilotproject Provenance Research on Objects of the Colonial Era' (PPROCE; Stutje 2022a, b). With possible restitution claims in mind, the project aims to 'develop a research methodology and make recommendations for the organisation and policy surrounding provenance research into colonial collections' (for further information, see https://www.niod.nl/en/projects/pilotproject-provenance-research-objects-colonial-era-pproce). The Dutch government can use, share and supplement this information in cooperation with foreign governments in case of future restitution claims. The Banjarmasin diamond may become the subject of one of these claims.

Prior to the PPROCE project, much was written on the history of this famous diamond (Brus 1987a, p. 38; Brus 1987b, p. 12; Akkerman 1989; Brus 1989, p. 36; Bari & Sautter 2001, pp. 96–101; Zandvliet 2002, pp. 302–305; Fleet 2005, p. 27; Balfour 2009, pp. 44–45; Drieënhuizen 2017), but a gemmological study had never been conducted. The diamond is not only important for its role in colonial history but also from a material point of view, as it is one of the few historical examples of large diamonds found in Borneo. In addition, the way the Banjarmasin diamond looked before and after it was cut greatly affected its (historic) value and the way it was treated by the Dutch government. The first part of the present article focuses on sources that describe the rough diamond and the cut gem. Until recently it was unknown when, where and by whom the diamond was cut, but the PPROCE project

[1] The other regalia were transferred to the Royal Batavian Society of Art and Sciences as 'archaeological rarities'. They were listed in an 1868 catalogue (Norman 1868, pp. 95–98) and are now part of the collection of the National Museum of Indonesia in Jakarta (Stutje 2022a, b).

[2] Equivalent to a current value of about EUR4.5 million.

[3] As reported in The Hague, National Archives (NL-HaNA), Ministry of Colonies 1850–1900, accession number 2.10.02, inv. no. 1158, 10 March 1862, no. 6, minutes 10-6, p. 4. In the accompanying minutes and correspondence between the Minister of the Colonies and the Governor-General of Batavia, the Koh-i-Noor diamond was briefly mentioned in comparison with the Banjarmasin diamond. The Koh-i-Noor was 'a feat of the British Indian Army' (*eene hulde van 't Brits-Ind. Leger*) and therefore was placed under the state regalia. According to the Dutch government, the same applied to the way the Banjarmasin diamond was acquired.

[4] Indicated in a letter from the Minister of Internal Affairs to the Minister of the Colonies (NL-HaNA, Ministry of Colonies 1850–1900, accession number 2.10.02, inv. no. 1272, 3 December 1862, no. 23); see also Stutje (2022a, p. 9).

Figure 3: This map of the Banjarmasin–Martapura region of South Kalimantan shows the location of the diamond mining areas of Karang-intan and Goenong Lawak. The inset image (adapted from Wikimedia Commons) shows the positions of the two main diamond-mining regions on the island of Borneo.

yielded valuable new information. The second part of this article then focuses on the stone's gemmological properties and their consistency with the assumed Borneo origin of the Banjarmasin diamond.

HISTORY

Borneo Diamonds

The diamond deposits of Borneo are, together with the Indian deposits, the earliest worked diamond mines in the world. On the island, diamonds have been found at two main localities: the Martapura area of South Kalimantan and the Landak District of West Kalimantan (Spencer *et al.* 1988; see also Figure 3). The Dutch first came into contact with diamonds from Borneo in the early seventeenth century (Content 2020). Following in the footsteps of Chinese and Portuguese traders, the Dutch East India Company (*Verenigde Oostindische Compagnie* or VOC) brought back a small quantity of these diamonds from their first voyage to Asia in 1604 (Ikuko 2010). They acquired the stones from Succadana (or Sukadana), a diamond-trading centre in western Borneo, where both the VOC and the British East India Company established a trading post ('factory') soon after (Ogden 2005, 2018). While the British East India Company focused on the Indian diamond mines, the Dutch traders purchased 400–500 carats of rough Kalimantan diamonds yearly between 1610 and 1615. In 1620, they sent more than 1,000 ct of diamonds back to Amsterdam.[5]

[5] See Ikuko (2010), pp. 169–172. After 1620, the VOC ventured into India, where it purchased small quantities of diamonds from Kollur, the Coromandel Coast and Surat. After the 1660s, the Dutch diamond trade with India started to decline, and although the Dutch continued to import Indian diamonds, by the eighteenth century the trade was no longer significant (see Ikuko 2010, p. 183).

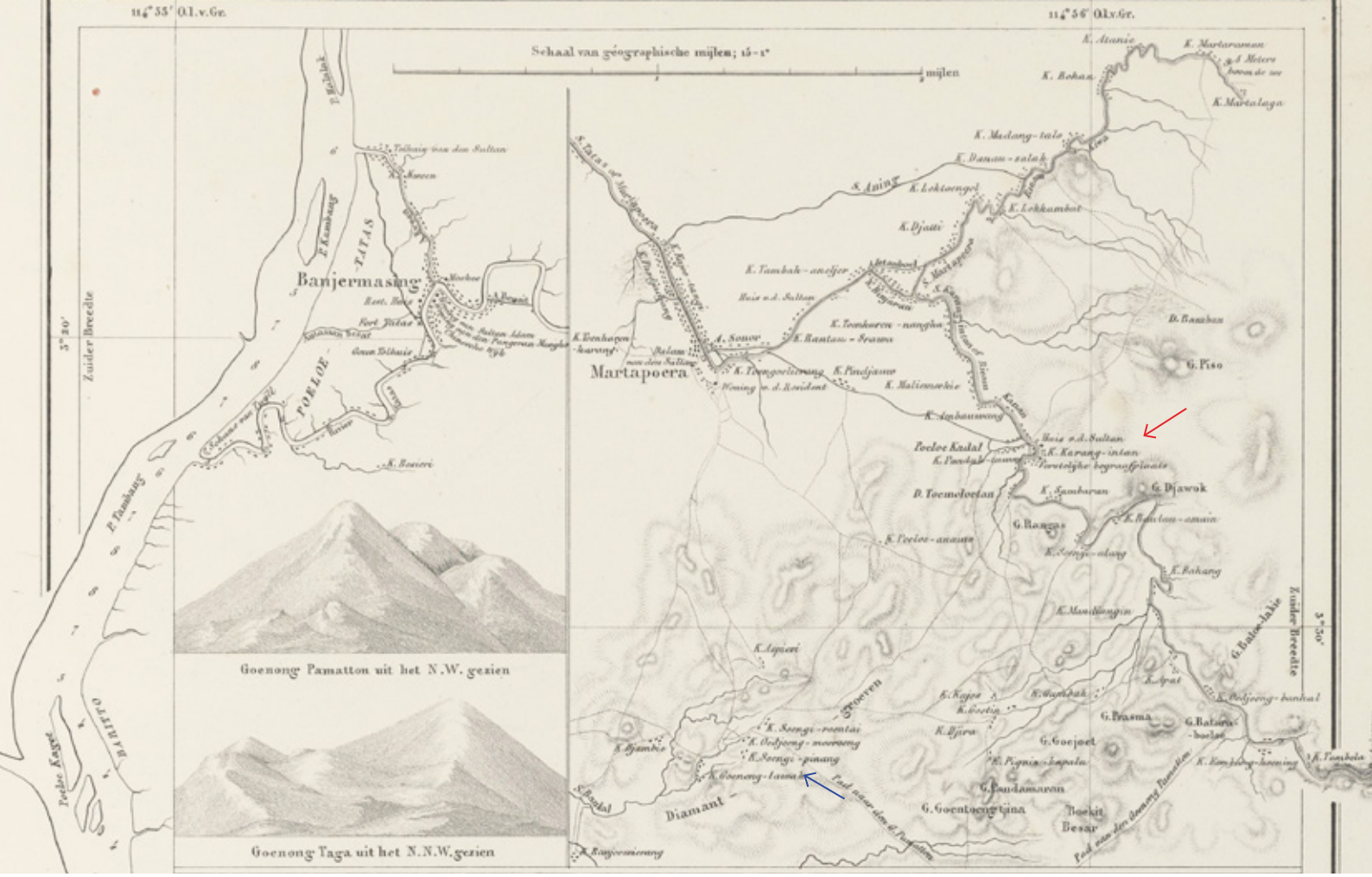

Figure 4: This map of the Banjermassing (Banjarmasin) and Martapoera (Martapura) areas appeared in a book by Müller (1839–1844; on p. 590 of the downloadable PDF file), and covers approximately the same area shown in Figure 3. The diamond localities of Karang-intan and Goenong Lawak are indicated by the red and blue arrows, respectively.

The Rough Banjarmasin Diamond

In September 1829, an unnamed Dutch resident of the town of Banjarmasin travelled upstream to Martapura (Figure 4) to visit the official residence, or *kraton*, of the Sultanate of Banjarmasin and the diamond quarries in that area.[6] The detailed account of his journey describes a moonlit trip on a narrow boat with 30 rowers that took him and his fellow travellers inland with the help of the incoming tide (Anonymous 1829). After arriving in Martapura the next morning, they were taken to the diamond quarries, where they saw 'yellow clay' being washed in wooden troughs/basins in search of diamonds (Figure 5), still a familiar sight in modern Martapura.[7] The next day, the group visited Sultan Adam who, for the occasion, showed them the biggest 'brilliant' ever found in the open-pit mines of this region.[8] Reportedly, a narrow golden band enclosed a 77 ct rough diamond that the sultan would wear on a simple black cord around his neck during festivities (Anonymous 1829).

This account is the earliest of several nineteenth-century sources describing a diamond in the possession of Sultan Adam that seem to refer to the rough Banjarmasin. Other descriptions were published in newspapers and in travel accounts of scientists and explorers visiting the sultanate (Anonymous 1833; Korthals 1836, 1837; Anonymous 1838; Müller 1839–1844; Teenstra 1852a, pp. 442–452; van Rees 1865a, p. 28). Some details vary in the accounts prior to 1848, including the weight, but we believe all these refer to one and the same diamond, the Banjarmasin. However, these sources must be used with some caution because the Banjarmasin was not the only large diamond owned by the royal family.[9] Publications

[6] Other diamond quarries were located at Goenong Lawak to the south of Martapura (Figure 4, blue arrow). This area corresponds to the modern Cempaka diamond fields in the Martapura region.

[7] This 'yellow clay' refers to the layer above the quartz-rich conglomerate that contained most of the diamonds. For a detailed historic description of the diamond mining along the river, see Schwaner (1853, pp. 61–69).

[8] The term *brilliant* was used frequently in nineteenth-century Dutch sources to describe diamonds in general.

[9] In preparing this article, preliminary information came to light that perhaps more large Borneo diamonds found their way to the Netherlands via Jakarta in this period. Whether they have a direct relation to the Sultanate of Banjarmasin remains to be investigated.

Figure 5: Local inhabitants search for diamonds in the Martapura area, as depicted in J. C. Rappard's *Delving for Diamonds Along the Sungai Lawak River*. Colour lithograph from Perelaer (1888, see plate between pp. 132 and 133).

after 1848, for example, mention a (rough) diamond larger than 100 ct (Bleckmann 1850; Teenstra 1852b, p. 831). W. A. van Rees, a former major in the Dutch colonial army, also mentioned a 120 ct diamond as part of the regalia (van Rees 1865a, p. 28). In a region that, in the middle of the nineteenth century, apparently still regularly produced diamonds above 5 ct (Müller 1843, p. 13)[10], a regular-shaped octahedron weighing 70+ ct was still exceptional and one of the reasons why it is described as the sultan's most prized possession (Müller 1839–1844, 1857; Zandvliet 2002, pp. 302–305).[11] The fact that this diamond was mentioned in numerous independent sources, despite discrepancies in the colour of the cord or the exact weight, illustrates its importance. Oral descriptions, non-standardised diamond weights and eyewitness accounts of people with no diamond expertise help explain some of the inconsistencies. That being said, because no drawings or photographs of the diamond are known to exist before 1898, these eyewitness accounts are a valuable source of information about the appearance of the rough diamond.

The first description to mention the shape of the rough diamond was written by German zoologist Salomon Müller (1804–1836).[12] In the 1820s and 1830s, he and a group of other European naturalists travelled through the Dutch East Indies on behalf of the 'Committee for Natural History of the Netherlands Indies' to collect specimens of local flora and fauna (Weber 2019). In 1836, his last stop before returning to the Netherlands was the south-east part of Borneo, where he and two colleagues spent 4½ months. A few days after their arrival in the town of Banjarmasin, they travelled upstream to Martapura and visited Sultan Adam. Müller was intrigued by the dilapidated state of the residence and, at the same time, the portable wealth that was displayed by the royal family (Müller 1839–1844, pp. 419–420; Müller 1857, pp. 268–269). Around his neck the sultan wore two pieces of jewellery, a gold medal set with diamonds and an almost regular octahedron that Müller reported weighing 77 ct which was suspended on a simple cord.[13]

One of the colleagues accompanying Müller in Borneo was the Dutch botanist P. W. Korthals (1802–1897). Previously unpublished parts of his diary from August 1836 and a short article from a year later describe his visit with Sultan Adam (Korthals 1836, 1837).

[10] Officially, diamonds above 5 ct had to be ceded to the sultan and his family for a small compensation.

[11] According to Max Bauer (1904, p. 219), the Malay considered regular octahedra as 'the perfect stones' because they required little or no cutting.

[12] In past publications, this account was often cited as the first nineteenth-century source mentioning the Banjarmasin diamond.

[13] The gold medal was presented to Sultan Adam by Governor-General of the Dutch East Indies, J. van den Bosch (1780–1844), as a token of their alliance. The medal was inscribed in Malaysian and Dutch: *Het Nederlandsche Gouvernement aan zijnen getrouwen bondgenoot den Sultan van Banjermassing* ('The Dutch Government to its faithful ally the Sultan of Banjermassing'. See Müller 1839–1844, p. 420; Müller 1857, p. 269).

Korthals' diary describes both the sultan's clothes and the diamond in detail. He mentioned that the sultan was a man of 'normal' size, tastefully dressed in green silk trousers, with gold galloon on the seams and a white vest set with diamond buttons increasing in size near the neckline. His yellow headscarf was 'folded curiously with at least a dozen points' (see Figure 2).[14] He wore multiple finger rings set with gemstones, and diamond studs in his ears, and Korthals also described the gold medal set with diamonds.[15] The sultan's eldest son and heir to the throne, Abdul Rachman (1825–1852), was sitting next to him on a chair covered with yellow silk. He wore a yellow headscarf with a silver galloon trim, white trousers and a black velvet *samaar* (tabard) decorated with flowers in gold thread. Korthals described three diamonds *aan de hals* (on the neck) of the *sultan moeda* (sultan's son), one of which was a 40 ct *cut* diamond.[16]

After 'lukewarm and weak tea accompanied with local pastry', Sultan Adam showed Korthals and his colleagues the diamond, reported as weighing 76 ct (Korthals 1836).[17] The fairly regular octahedral-shaped diamond was colourless, and through one of its faces Korthals spotted some black dots. Colour-wise he called the stone 'pure'. He further wrote that, although the four sides of one part of the octahedron were fairly uniform, the other part was not in perfect condition, since the point was broken off and one of the sides was damaged.[18] On the damaged side, Korthals (1837) reported, was a little hole, probably used for fixing the thin gold band that surrounded the rough diamond.[19] An 'emerald'-coloured piece of string was attached to the gold band, which allowed the sultan to wear the diamond as a necklace. The stone was reportedly found during the reign of Sultan Adam's father, Sultan Sulaiman Saidullah (1761–1825), in the 'mines' of Karang-intan (Figures 3 and 4).[20]

After Sultan Adam died in November 1857, he was succeeded by his grandson, Tamdjiddillah al-Watsiq Billah (1817–1867), the first son of the deceased crown prince Abdul Rachman (Stutje 2022a, b). His installation marked the beginning of a period of political and social turmoil that would eventually lead to the Banjarmasin War. In June 1859, Tamdjiddillah resigned under heavy pressure from the Dutch government, and he surrendered the regalia of the Sultanate of Banjarmasin, including the diamond, shortly thereafter. Sometime in the following year the regalia were transported to the civil warehouses in Batavia. In July 1861, they were offered to the Bataviaasch Genootschap (Royal Batavian Society of Art and Sciences)[21], except for the diamond that would sail to the Netherlands a few months later. [22]

Arrival in Europe and Cutting

The first 'official' examination of the rough Banjarmasin took place on board the war steamer *Zr. Ms. Ardjoeno*, two days before the ship left the port of Batavia on 16 December 1861. A Muslim diamond expert, Said Adbulla Alaijderves, determined a weight of 70 ct for the gem in its setting, which he described as *in zilver gevatten steen of ruwen diamant* ('stone or rough diamond set in silver'; Figure 6).[23] Apparently nothing was recorded about the form of the rough. The diamond was then wrapped in paper and sealed in a yellow palm-wood

[14] In Dutch: *Zijn geele hoofddoek was op eene zonderlinge wijze gevouwen en had zeker een tiental punten* (Korthals 1836, p. 60).
[15] Sultan Adam told Korthals that this medal was set with diamonds because it was *Soeka Sa(e)kili* (he liked it very much; Korthals 1836, p. 61).
[16] This cut diamond, which was worn by the son of the sultan (*sultan moeda* or *pangerang Ratoe*), is not mentioned in any of the other nineteenth-century sources (Korthals 1836, p. 61).
[17] A year later, Korthals described the diamond as a 72 ct octahedron (Korthals 1837, p. 245).
[18] In Dutch: *Hij is een vrij regelmatige octaëder, waar van de 4 hoekig goed uitloopen, de andere vierhoek is daarentegen onregelmatiger door het afbreken der punt en eene zijde der 4. kanten, hier is ook een klemgaatje in denzelven, en aan der punten ziet men een zwart vlekje; de steen is wat de kleur aangaat zuiver. Hij is gevat tusschen een gouden vatsel die de kanten bedekken en hangt daardoor aan een smarag pennenkoord, hetwelk de plaats van ketting bekleed* (Korthals 1836, diary entry 7 August).
[19] In Dutch: *een tamelijk regelmatige achthoek met een gaatje aan een der kanten* (Korthals 1837, p. 245).
[20] Korthals wrote that the diamond was a *prosakka* (*pusaka* or *poesaka*) of Sultan Sulaiman. This term refers to specific objects that have a strong bond with the family ancestors and are considered valuable heirlooms (Korthals 1836, p. 62). The mines of Karang-intan are situated on the right side of the map in Figure 4 (see red arrow), between 'a house of the sultan' (*Huis v.d. Sultan*) and the royal cemeteries (*Vorstelijke begraafplaats*).
[21] See Bestuursvergadering, 13 July 1861 (van der Chijs 1862, pp. 122–125).
[22] It was proposed that the Minister of the Colonies should gift the diamond to the Dutch King William III (1817–1890) as an ornament for his crown (Stutje 2022a, p. 349).
[23] NL-HaNA, Colonies, 1850–1900 (2.10.02), inv. no. 1158, 10 March 1862, proceedings of 14 December 1861.

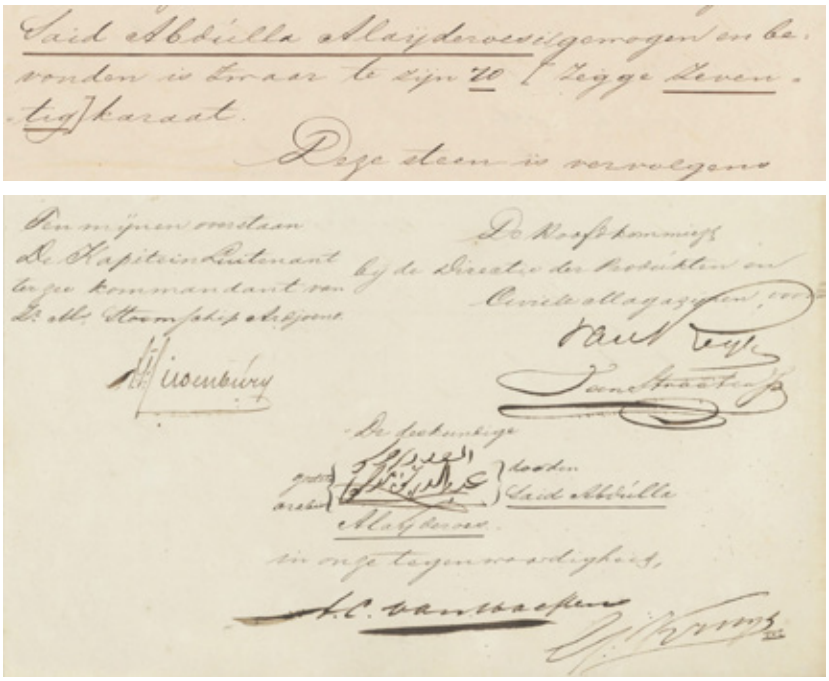

Figure 6: A signed document from 14 December 1861 mentions a weight of 70 ct (top image) and also describes the Banjarmasin as a 'stone or rough diamond set in silver'. The document bears the names and signatures of the Muslim diamond expert Said Abdulla Alaijderves, Captain A. F. Siedenburg and two officials of the warehouse in Batavia (bottom image). From NL-HaNA, Colonies, 1850–1900 (2.10.02), inv. no. 1158, 10 March 1862, proceedings of 14 December 1861.

box. Upon arrival at the Ministry of Colonies in The Hague in April 1862, the diamond was unpacked to be authenticated, after which it remained there for another two years. In February 1864, Amsterdam diamond broker Emanuel Vita Israel (1831–1915) examined and weighed the stone (recording 69⅞ ct) before it was transferred to De Nederlandsche Bank in Amsterdam.[24]

It took another five years before a decision was made to sell the diamond, and in October 1869 the Nederlandsche Handel-Maatschappij (Netherlands Trading Society or NHM) valued the Banjarmasin at 300,000 guilders (a devaluation of 100,000 guilders over seven years). NHM, which specialised in trading colonial products from the Indies, was asked to suggest the best way to sell the diamond without disclosing from whom and how the Ministry of Colonies had acquired it.[25] Amsterdam jewellers Benten & Zonen sent a clear message to NHM: because of the diamond's rough form and its imperfect clarity, they did not expect an offer of more than 100,000 guilders. In fact, they suggested aiming for a sale price of 70,000–80,000 guilders.[26] Benten & Zonen was unable to secure any serious offers in the following months, and in May 1870, Meijer Moses (Martin) Coster (1818–1880), director of Coster Diamonds in Paris, France, advised the ministry to have the diamond cut.

The stone was sent to Abraham Eliazer Daniels (1801–1880) and his son, Alexander Daniels (1832–1911), managing directors of Coster Diamonds in Amsterdam (Figure 7).[27] This company was responsible for the cutting of the Koh-i-Noor and the Star of the South diamonds in, respectively, 1852 and 1856–1857 (Smith & Bosshart 2002). By August 1870, the Banjarmasin had been faceted into a modified Old Mine cut of 37⅜ ct. However, NHM wrote to the ministry that the diamond did not show a 'clear brilliance', as expected, but instead had a yellowish tint.[28] This would have a negative influence on its value, which NHM lowered to 45,000 guilders.[29] With its financial gain diminished, the Banjarmasin diamond was then described as 'a valuable memorial of an important event in the history of the Dutch East Indies' and put back in the safe of NHM.[30]

[24] NL-HaNA, Colonies, 1850–1900 (2.10.02), inv. no. 1441, 22 February 1864, no. 9, minutes of transfer from the Ministry of Colonies to the Dutch national bank.
[25] NL-HaNA, NHM, 2.20.01, inv. no. 428, minutes of the board meeting, no. 72, 8 October 1869.
[26] NL-HaNA, NHM, 2.20.01, inv. no. 428, minutes of the board meeting, no. 93, 20 December 1869.
[27] NL-HaNA, NHM, 2.20.01, inv. no. 428, minutes of the board meeting, no. 27, 9 May 1870, and NL-HaNA, Colonies, 1850–1900 (2.10.02), inv. no. 6010, minutes of 6 May 1870 E5.
[28] In Dutch: *een min of meer geelachtigen tint, die van nadeeligen invloed is op de waarde van het juweel*.
[29] NL-HaNA, Colonies, 1850–1900 (2.10.02), inv. no. 6013, letter from NHM to the Minister of Colonies, 27 August 1870.
[30] In Dutch: *a kostbaar gedenkteeken van een belangrijke gebeurtenis in de geschiedenis van Nederlands-Indië*; NL-HaNA, Colonies, 1850–1900 (2.10.02), inv. no. 2779, minutes of 21 April 1875, no. 19.

Figure 7: The Coster diamond factory on the Amstel River in Amsterdam (depicted here) was where the rough Banjarmasin diamond was faceted into a modified Old Mine cut in 1870. *Amstel 1-13*, watercolour on paper in 1852 by Cornelis Springer (1817–1891); Amsterdam city archives (inv. no. 010097015145).

Early Display and Documentation

Although it is often stated that the cut Banjarmasin diamond was first shown to the public after its transfer to the Rijksmuseum in 1902, it seems that it was put on public display almost 20 years earlier. In 1883, Amsterdam hosted the International Colonial and Export Exhibition at what is now the Museumplein. In addition to displays showcasing 'marvels' from the Dutch colonies, there were pavilions to impress the international visitor with the splendour of Amsterdam's industries. Its renowned diamond-cutting industry was showcased in its own pavilion close to the main building (Figure 8). The diamond exhibition was extensively covered by Dutch newspapers after the exhibition's opening in May 1883. In one detailed review, specific mention is made of a 'beautiful brilliant from Borneo weighing 37½ carats' that was loaned by NHM for the showcase of diamond broker Emanuel Vita Israel (Anonymous 1883), who had examined the Banjarmasin almost 20 years earlier and knew of NHM's involvement. Because there are no images of the pavilion's interior or its showcases, we do not know the context in which the diamond was displayed, although it is probably safe to assume the Sultanate of Banjarmasin was not mentioned as its previous owner.

The first known photographs of the Banjarmasin diamond date from 1898 and were included in a Dutch auction catalogue (Figure 9). The auction was organised by Emanuel Vita Israel and his brother. The catalogue lists the Banjarmasin as the first lot and describes it as *Un Brilliant ancient, qualité supérieure, provenant des mines de Bornéo* (Henriques de Castro *et al*. 1898). Its weight was listed in both carats ($37^{7}/_{32}$) and grams (5.450), and three photographs illustrated different views of the diamond. In previews of the 23 March event, to be held at auction house De Brakke Grond, advertisements in Dutch newspapers raised awareness of the various diamonds, pearls and other pieces of jewellery that were to be offered. Although most of the announcements were rather general, one from the 23 January 1898 edition of the *Algemeen Handelsblad* specifically mentions a 'Borneo brilliant' of 39 ct, presumably the Banjarmasin (Anonymous 1898, p. 12; see Figure 10). Despite these efforts, the diamond once again failed to be sold. Emanuel Vita Israel kept the Banjarmasin until August 1902, when it was transferred as a permanent loan to the Rijksmuseum, although it was not properly registered until the year 2000 (Stutje 2022b).

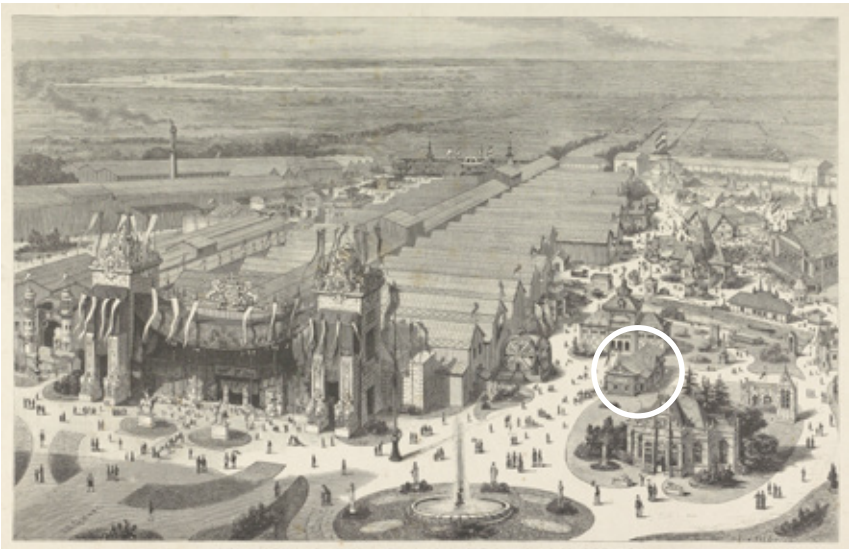

Figure 8: At the 1883 International Colonial and Export Exhibition in Amsterdam, the Banjarmasin was displayed in a pavilion where the diamond-cutting industry of Amsterdam was showcased (circled building). *The International Colonial and Export Exhibition in Amsterdam in 1883*, woodcut by E. & A. Tilly after Johan Conrad Greive, 1883, Rijksmuseum, Amsterdam (inv. no. RP-P-OB-89.774).

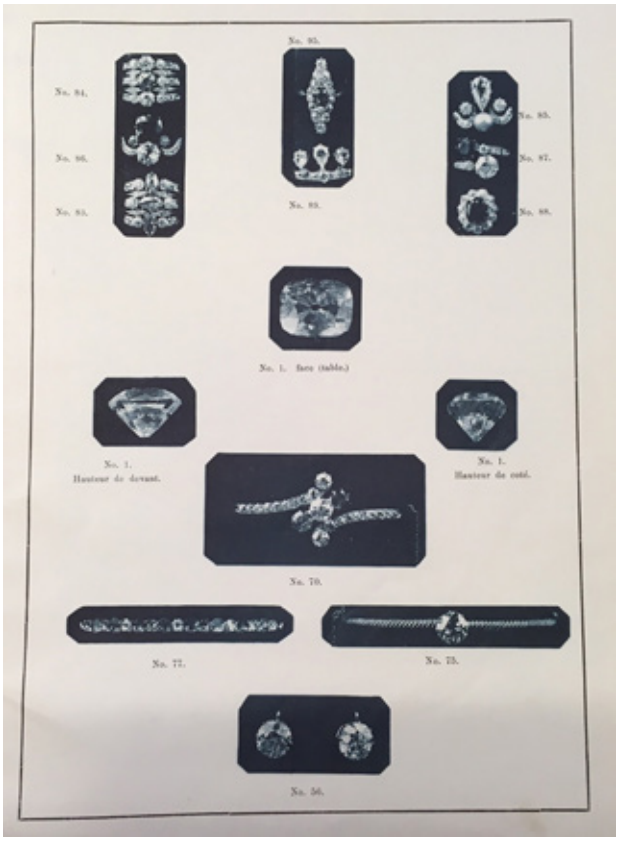

Figure 9: The Banjarmasin diamond is listed as item no. 1 in three views on this page from the *Catalogue d'une très belle Collection de Diamants, Bruts et Taillés, Perles et Pierres de Colours...* at De Brakke Grond on 23 March 1898 (Henriques de Castro *et al.* 1898). The diamond failed to sell at the auction.

METHODS

Analyses of the Banjarmasin diamond took place at both the Rijksmuseum and the Netherlands Gem Laboratory, and included standard gemmological testing, ultraviolet-visible-near infared (UV-Vis-NIR), Fourier-transform infrared (FTIR) and Raman spectroscopy, and DiamondView imaging. The colour was graded using a CIBJO master stone set of round brilliant-cut diamonds and a Dialite Pro daylight-equivalent fluorescent lamp (6500 K). Internal features were observed with a standard gemmological microscope, a Hirox Digital Microscope KH-7700 and a Nikon Eclipse E600 POL polarising microscope.

Inclusions were analysed by Raman spectroscopy using a Thermo DXR Raman microscope with 532 nm laser excitation. Raman spectra were collected in confocal mode to enable analyses of individual inclusions on a micron scale (1–2 µm).

Mid-IR spectra were obtained with a Thermo Nicolet iS50 FTIR spectrometer. UV-Vis-NIR absorption spectra were collected with a Thermo Scientific Evolution 600 spectrometer in the 280–850 nm range.

VOORLOOPIG BERICHT.

De Makelaars VITA ISRAËL zullen in de 2de helft der maand Maart e. k. in het Lokaal *DE BRAKKE GROND*, ten overstaan van de Notarissen Mr. J. F. WERTHEIM en POLLONES & SMITS in veiling brengen: Eene Partij losse en gezette Diamanten, Paarlen en gekleurde Steenen, waaronder uitmunten: een zeldzaam groote en heldere, geslepen oude Borneesche Brilliant van ongeveer 39 karaat, Paarlen Colliers, met Brillianten en Diamanten bezette Broches, Oorringen, Ringen, Horloges etc. etc. (1555)

Figure 10: A newspaper announcement of the March 1898 auction at De Brakke Grond (see Figure 9) mentions a 'rare and clear cut old Borneo brilliant of approximately 39 carats'—presumably the Banjarmasin diamond—being offered along with other pieces of jewellery. From Anonymous (1898, p. 12).

Long- and short-wave UV lamps were used in a darkened room to observe luminescence, and growth patterns were observed with a DiamondView fluorescence imaging instrument, which uses ultra-short-wave UV radiation (< 230 nm).

RESULTS

The properties of the Banjarmasin diamond are summarised in Table I. It weighs 38.23 ct and is faceted as a modified Old Mine cut, with ten bezel facets on the crown and ten pavilion facets (Figures 1 and 11), instead of the usual eight bezel and eight pavilion facets. (On the long sides of the diamond there was enough space to add extra facets to improve its sparkle and brilliance.) Apart from the typically high overall depth and large culet, the stone has a fairly large table as compared to the usually small table of an Old Mine cut. The outline of the diamond is sharp with a thin, faceted girdle. Three naturals are present: one on the girdle (Figure 12) and two on the edges of two bezel facets.

Table I: Properties of the Banjarmasin diamond.

Weight	38.23 ct
Measurements	21.86 × 17.37 × 13.86 mm
Colour	E (exceptional white)
Clarity	SI_2
Cut	Modified Old Mine cut
Depth	79.8%
Table	59%
Symmetry	Good
Polish	Good
Girdle	Faceted, where present
UV fluorescence	Very weak blue (long-wave) or inert (short-wave)
Phosphorescence	None
Diamond type	IaAB

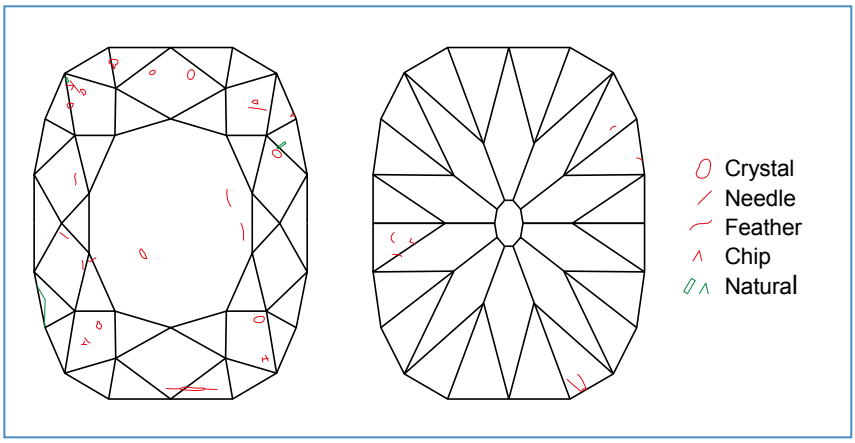

Figure 11: A schematic drawing of the Banjarmasin diamond (modified Old Mine cut) shows ten bezel facets on the crown and ten pavilion facets on the pavilion. A plot of major internal (red) and external (green) features illustrates why it received a clarity grade of SI_2.

The E colour grade (also known as 'exceptional white') was determined by viewing the diamond table down, through the pavilion, at different angles, but especially with its long and short axes at about 45° to the observer. The stone was oriented in this way so that its outline most closely resembled that of the round-brilliant master stones and showed the best visual 'average' for the amount of colour observed (cf. King *et al.* 2008).

Numerous dark inclusions were easily visible to the unaided eye. A schematic plot of the most prominent inclusions reflects their relative size and position (again, see Figure 11). Comparing the sizes of the inclusions and their reflections to the size of this diamond, and relating these characteristics back to a smaller, more average-sized diamond (e.g. 1 ct), we assigned a clarity grade of SI_2.

Many of the dark inclusions were needle-like and oriented in specific directions (Figure 13), which appear to be largely controlled by the octahedral growth of the host diamond. Also observed were transparent colourless inclusions associated with stress haloes that were filled with a black material (Figure 14). The colourless inclusions were identified as forsterite (olivine) by Raman micro-spectroscopy. Because the Raman signal of the host diamond was very strong, the spectral features of these inclusions were barely visible. But by scanning specifically in the 1000–600 cm^{-1} range, the characteristic spectral features of forsterite became apparent (Figure 15). The black inclusions could not be identified by Raman micro-spectroscopy.

FTIR spectroscopy yielded features consistent with those of type IaAB diamond (Figure 16). Strong absorption in the 1300–1100 cm^{-1} region indicated the presence of both A centres (a pair of nitrogen atoms substituting for carbon atoms, producing a peak at 1282 cm^{-1}) and B centres (a carbon vacancy surrounded by four nitrogen atoms, substituting for carbon atoms, causing a peak at 1175 cm^{-1}). A strong platelet peak (caused by extended planar defects in {100} lattice planes, consisting of arrays of carbon interstitials) was present at 1367 cm^{-1}, and a minor peak at 3107 cm^{-1} was related to the presence of hydrogen (cf. Collins 1982, 2001, 2003; Goss *et al.* 2003). The spectrum also contained a small feature at 1522

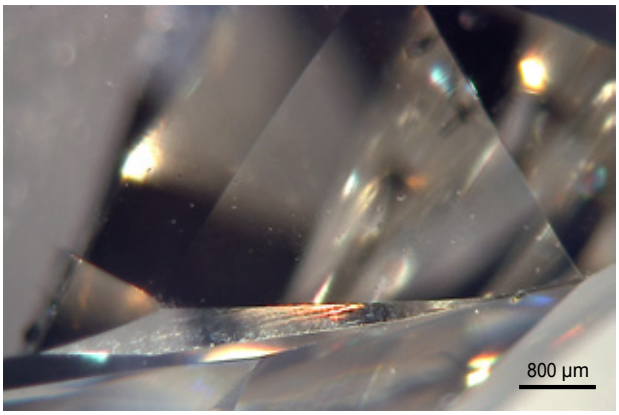

Figure 12: One of the naturals on the Banjarmasin diamond is located along a thin, faceted portion of the girdle. In many places, the girdle is absent and the crown-pavilion junction is razor sharp (see right-hand side of this image). Photomicrograph by J. C. Zwaan.

Figure 13: Many black needle-like inclusions are present in the Banjarmasin diamond, and they are commonly oriented in specific (mainly octahedral) directions. Photomicrograph by J. C. Zwaan.

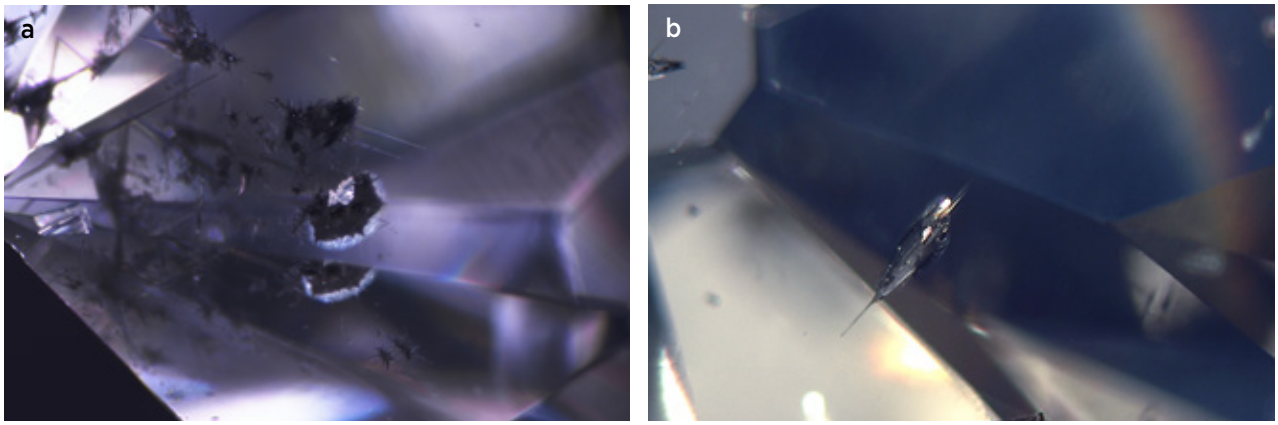

Figure 14: Colourless, transparent olivine inclusions in the Banjarmasin diamond display surrounding stress haloes filled with a black material. Photomicrographs by J. C. Zwaan; image widths (**a**) 3.7 mm and (**b**) 6.6 mm.

cm^{-1}, which is occasionally detected in natural untreated diamonds (e.g. Dobrinets *et al.* 2013).

UV-Vis-NIR spectroscopy showed an absorption edge at 325 nm and a peak at 415 nm due to N3 centres (three nitrogen atoms surrounding a vacancy; cf. Collins 1982; Figure 17). The 415 nm peak and the related absorption near 380 nm only attained approximately 0.9 absorbance unit, which is very weak, and with no typical cape absorption at 478 nm, virtually no yellow colouration was present (i.e. E colour grade). So, like most gem diamonds (cf. Anderson & Payne 1998), the Banjarmasin contains a mixture of A and B centres, together with a low amount of N3 centres that is just a fraction of the concentrations of A and B centres.

Fluorescence to long-wave UV radiation was very weak blue, and the stone was inert to short-wave UV. The long-wave UV fluorescence appeared patchy when viewed from the pavilion (Figure 18). DiamondView imaging clearly revealed the diamond's growth patterns (Figure 19), with blue luminescence. A complicated growth structure was visible in the core, surrounded by regular octahedral growth zones. The core area generally fluoresced only slightly stronger blue. The contact between the core area and the outer zone appeared jagged due to resorption after an early growth phase (cf. Wiggers de Vries 2013). Small displacement zones or slip lines (at left in Figure 19) indicate plastic deformation during an episode of later octahedral growth. Viewed from the pavilion side, mainly octahedral growth zones could be observed, with the same core structure near the culet as seen from the table side.

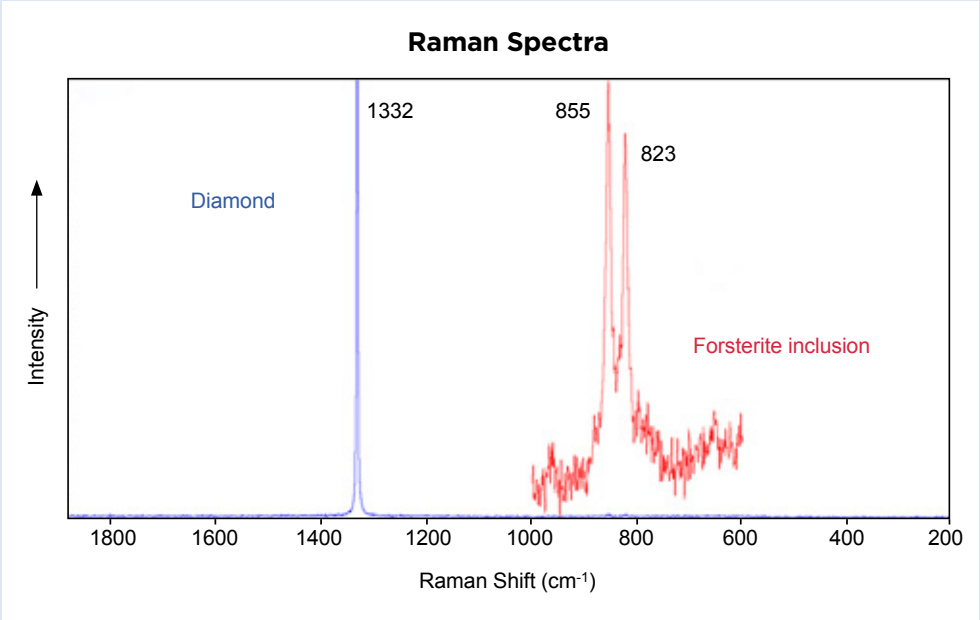

Figure 15: The strong Raman signal of the host diamond at 1332 cm^{-1} makes the features of an analysed inclusion difficult to detect (blue trace). Scanning the specific region between 1000 and 600 cm^{-1} makes the forsterite spectrum more apparent (red trace).

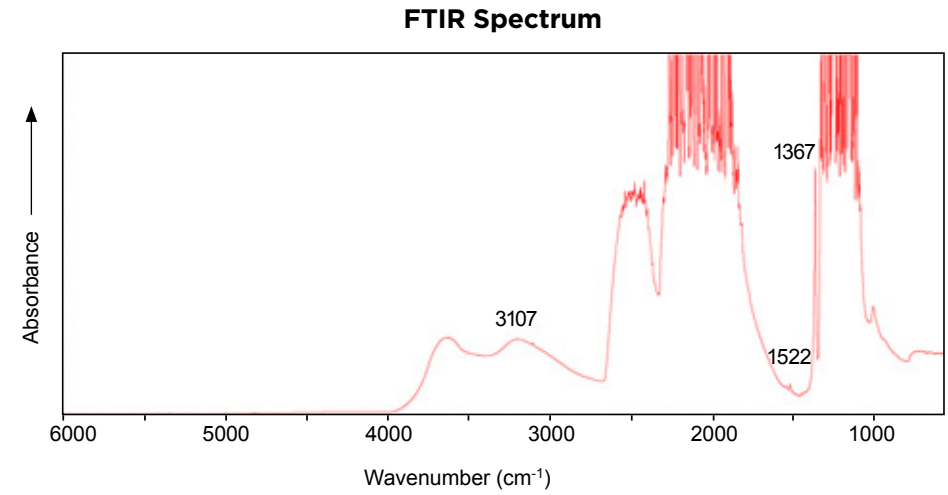

Figure 16: The FTIR spectrum of the type Ia Banjarmasin diamond supports the presence of a mixture of A and B centres in the 1300–1100 cm^{-1} region, along with a strong platelet peak at 1367 cm^{-1}.

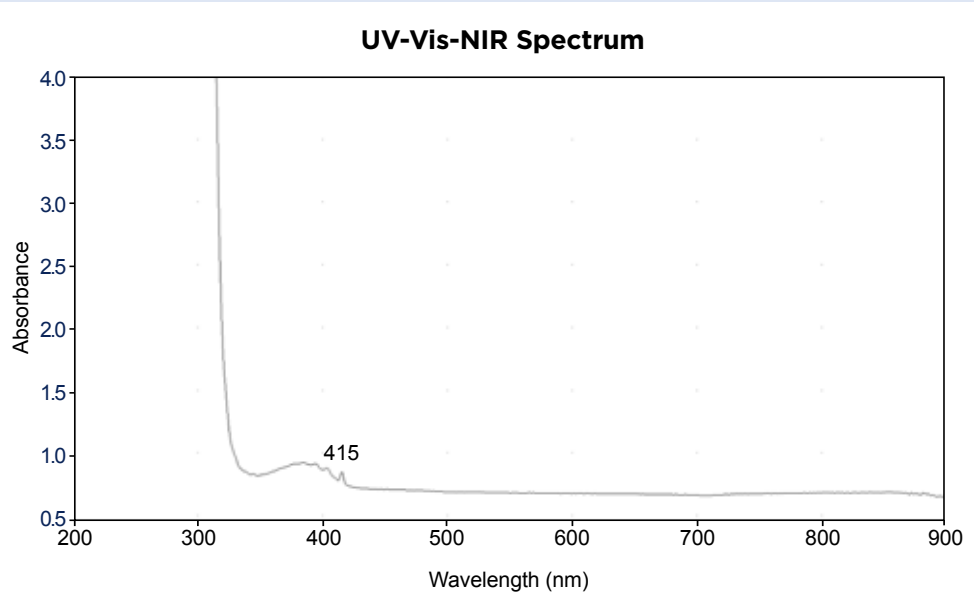

Figure 17: The UV-Vis-NIR spectrum of the Banjarmasin diamond shows only a weak N3 paramagnetic absorption (with a 415 nm zero-phonon line), corresponding to its virtual lack of colour.

DISCUSSION

Black inclusions are poor Raman scatterers, so the ones in this diamond could not be identified with certainty. Such black inclusions commonly consist of sulphides (pyrrhotite or pentlandite) and graphite, although highly reflective chromite has also been identified (e.g. Harris 1972; Harris *et al.* 1972; Koivula 2000). The needle-like black inclusions (Figure 13) look very similar to patterns of small black platelets and needles that form distinct clusters or directional arrays along diamond cleavage planes, and have previously been identified as graphite (Harris 1972). The black material in the fractures around the forsterite inclusions may consist of graphite or sulphides. This material is hosted by tension fractures that are caused by the greater volumetric expansion of olivine than diamond during a decrease in pressure that took place after the diamond's formation (Harris *et al.* 1972).

As mentioned in the History section of this article, the Banjarmasin diamond reportedly originated from southern Kalimantan on the island of Borneo, one of the oldest-mined sources of diamonds. However, most diamonds from Kalimantan are relatively small (averaging about 0.30 ct; Spencer *et al.* 1988), which could raise the question of whether the Banjarmasin originated elsewhere. For instance, India has historically been known as an important source of large 'white' and pink 'Golconda' diamonds (e.g. Bari & Sautter 2001, pp. 96–101). However, large Golconda diamonds have often

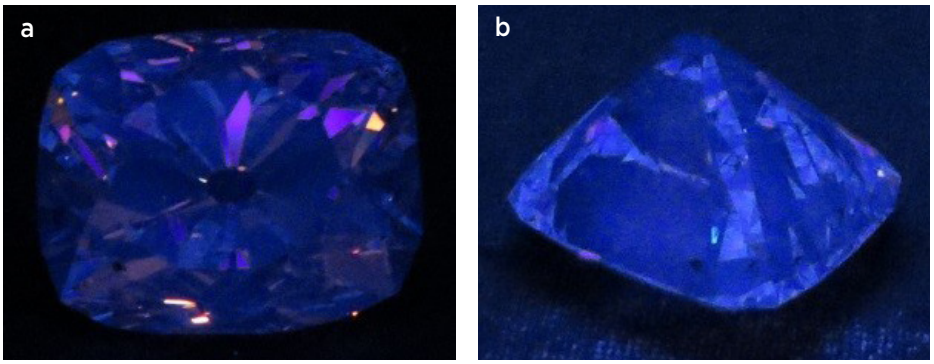

Figure 18: (**a**) The 38.23 ct Banjarmasin diamond fluoresces very weak blue to long-wave UV radiation. (**b**) The blue luminescence appears patchy when viewed on the pavilion side of the stone. Photos by J. C. Zwaan.

been characterised as the rare type IIa, which does not contain nitrogen (e.g. King *et al*. 2008), so India seems a less likely source for the Banjarmasin. Also, there is some evidence of large diamonds coming from Kalimantan. In 1789, the 367 ct Matan diamond was reportedly found in the Landak River of western Kalimantan (Ball 1931), and several diamonds exceeding 100 ct once belonged to the Malay Prince of Landak (Bauer 1904). A more recent find from Kalimantan, in 1965, of the 166.85 ct Tri Sakti diamond (subsequently faceted into a 50.53 ct emerald cut; Spencer *et al*. 1988) also confirms that large diamonds have been found in this region.

Since diamonds are formed in the earth's mantle, their properties cannot be used to provide convincing evidence for a specific geographic origin (cf. Smith *et al*. 2022). The Banjarmasin diamond has characteristics that are commonly seen in many diamonds from all over the world, consistent with those of other diamonds from Kalimantan. Most Kalimantan diamonds are of good gem quality, are generally colourless or pale brown (less commonly pale yellow), typically have simple octahedral zonation and may show plastic deformation (with rare cases of more complex internal structures and episodes

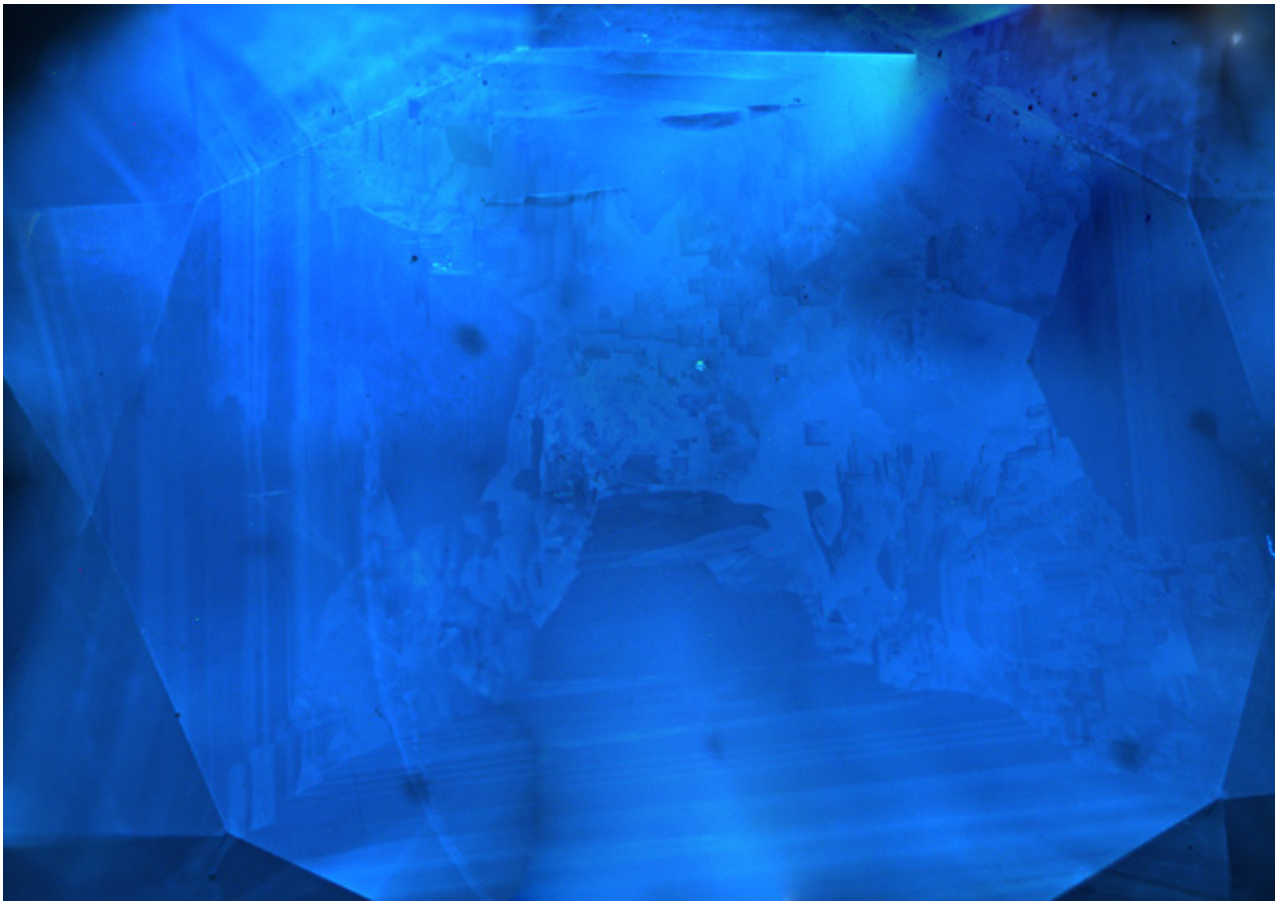

Figure 19: A DiamondView fluorescence image of the Banjarmasin diamond reveals a combination of complicated early growth patterns and later regular octahedral growth. Photo by J. C. Zwaan; image width 15.9 mm.

of resorption). Many are well-aggregated type IaAB (implying a long-term mantle residence time and/or high temperatures of formation), contain detectable hydrogen impurities, and have inclusion parageneses that are 68% peridotitic (containing forsterite; Smith *et al*. 2009). The Banjarmasin diamond shows consistent features: it is colourless, shows octahedral growth zoning and displacement zones indicating plastic deformation, and contains forsterite inclusions. Strong absorption in the 1300–1100 cm^{-1} indicates the presence of aggregated nitrogen in A and B forms. Other indicators that both A and B aggregates are present in comparatively large concentrations are the very weak fluorescence, indicating the presence of A aggregates quenching the fluorescence caused by N3 centres (cf. Collins 1982), and the strong platelet peak, which has an intensity proportional to the absorption produced by the B aggregates (Collins 2001; Smith *et al*. 2009).

CONCLUSION

The Banjarmasin diamond in the collection of the Rijksmuseum in Amsterdam reportedly originated from southern Borneo (in today's South Kalimantan, Indonesia), and was confiscated by the Dutch from the Sultanate of Banjarmasin. It therefore is a symbol of the controversial history of Dutch colonial rule in this part of Indonesia. As a rough diamond weighing 70+ ct, it arrived in the Netherlands in 1862. In 1870, it was faceted into a modified Old Mine cut weighing 38.23 ct. Over the next three decades, there were several unsuccessful efforts to sell it. Ultimately, the diamond was transferred to the Rijksmuseum in 1902. During recent examinations of the diamond as reported in this article, it was graded as E colour and SI_2 clarity. It is a type IaAB diamond, contains forsterite and probable graphite inclusions, and is one of the few historical examples of large diamonds found in southern Borneo.

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Acknowledgements

We thank Dirk van der Marel for assistance in drawing the modified Old Mine diagram and stitching separate DiamondView images into one overview image for Figure 19. We thank NIOD historian Dr Klaas Stutje, and jewellery historians René Brus and the late Erik Schoonhoven, for sharing and discussing valuable source material on the Banjarmasin diamond. Collections archivist Karien Lahaise of Naturalis kindly shared scans of the unpublished diaries of P. W. Korthals.