

BITTERSWEET: SUGAR, SLAVERY, AND SCIENCE IN DUTCH SURINAME

Elizabeth Sutton

Pictures of sugar production in the Dutch colony of Suriname are well suited to shed light on the role images played in the parallel rise of empirical science, industrial technology, and modern capitalism. The accumulation of goods paralleled a desire to accumulate knowledge and to catalogue, organize, and visualize the world. This included possessing knowledge in imagery, as well as human and natural resources. This essay argues that representations of sugar production in eighteenth-century paintings and prints emphasized the potential for production and the systematization of mechanized production by picturing mills and labor as capital. DOI: [10.18277/makf.2015.13](https://doi.org/10.18277/makf.2015.13)

Pictures of sugar production in the Dutch colony of Suriname are well suited to shed light on the role images played in the parallel rise of empirical science, industrial technology, and modern capitalism.¹ Images were important to legitimating and privileging these domains in Western society. The efficiency considered necessary for maximal profit necessitated close attention to the science of agriculture and the processing of raw materials, in addition to the exploitation of labor. The accumulation of goods paralleled a desire to accumulate knowledge and to catalogue, organize, and visualize the world. Scientific rationalism and positivism corresponded with mercantile imperatives to create an epistemology that privileged knowledge about the natural world in order to control its resources. Prints of sugar production from the seventeenth century provided a prototype of representation that emphasized botanical description and practical diagrams of necessary apparatuses. This focus on the means of production was continued and condensed into representations of productive capacity and mechanical efficiency in later eighteenth-century images.

Although the paintings and prints of Suriname plantation life are ostensibly realistic descriptions from life, they do not show the reality of slave labor on plantations, as Elmer Kolfin, Rebecca Parker Brienen, and others have noted.² Rather, the paintings—which form a rare group of images by Dutch artist Dirk Valkenburg—depict the landscape as capital: on it are the resources to be used. Valkenburg's paintings follow from the descriptive drawings he made of Jonas Witsen's plantations between 1706 and 1708. These drawings, like the paintings, focus on the buildings and machines that are at once the capital necessary for, and emblematic of, a productive plantation. Similarly, prints from eighteenth-century accounts present labor as capital and the built environment as part of an efficient system of mechanized production. In both media, the focus is on an empirical description of the elements of modern capitalist production. Paintings and prints provide an inventory of nature built upon, owned, and controlled. In images, the sugar mill became a metonym for the efficient and productive plantation as a whole.

Since the turn of the seventeenth century, the Dutch had wanted a piece of the sugar trade that was then dominated by the Portuguese.³ The conquests of northeast Brazil and parts of West Africa by the West India Company (WIC) between 1636 and 1644 catalyzed Dutch involvement in the production, in addition to their previous role in the transport, of sugar. When the WIC lost control of northeast Brazil in 1654, the company refocused its attention to the Caribbean. Zeelander Abraham Crijnsen captured the colony of Suriname from the English in 1667, and it was officially exchanged for New Netherland (New York) in 1674. Between 1682 and 1795 the colony of Suriname was governed by the chartered Society of Suriname. The Society was mostly owned by the Amsterdam family Van Aerssen van Sommelsdijk, although the WIC retained some shares. Like Brazil, Suriname was a plantation economy.⁴

Throughout the period of the Dutch Republic's rise as an economic power in the early modern world system,⁵ sugar syrup, or crystals (*kandij*), brought from the Caribbean and Indonesia was baked into cones or blocks in the bakeries (*suikerbakerij*) located across its provinces. By 1662, there were over fifty refineries in Amsterdam, and more in other port cities.⁶ At that time, the Republic provided more than half of the refined sugar consumed in Europe.⁷ By 1752 there were 152 refineries in the Republic, processing over 35 millions pounds of imported raw sugar; 139 of the refineries were in Holland. The increase in production made sugar a commodity that was within reach for a wider range of consumers than it had ever been before. Correspondingly, the total value of sugar in the Republic in 1770 was more than six times that of the total value of cheese there.⁸

In the Dutch Republic, the interest in and value of sugar meant that its cultivation and processing were frequent subjects for printed imagery published in news broadsides, multisheet wall maps, and books, particularly after the WIC's successful (albeit short-lived) colonization of northeast Brazil.⁹ Scientific information concerning when to plant, when to harvest, how to process raw cane, and other important visual cues necessary to make production efficient and profitable were clarified in images. These were preceded by visual and rhetorical narratives highlighting the profit potential of sugar. Since the Dutch first learned how to process sugar from the Portuguese planters in Brazil, agricultural and production details were of utmost importance and frequently copied.

Human labor was part of these images in the beginning, all but disappearing when production truly soared. Alison Kettering pointed out in her 2007 article "Men at Work, or Keeping One's Nose to the Grindstone" that artists in the Dutch Republic produced more images of labor than anywhere else in early modern Europe, but the few images of slaves laboring on sugar plantations in the colonies does not parse with the virtuous ideals of work imagery that focused on Europeans.¹⁰ Early images had emphasized the virtue of work to protect against sloth, and, increasingly, links were made between diligence and prosperity in contemporary literature and printed imagery. Correspondingly, in 1632 Caspar Barlaeus suggested that knowledge of moral and natural philosophy were necessary for the "wise merchant" (*mercator sapiens*); he even made mercantile pursuits virtuous and a duty, pursuant to the citizen's active role in the commonwealth.¹¹ However, by the nineteenth century, as Kettering recognized in Van Gogh's paintings, the images of a "worker integrated into society and justly compensated for his work" had broken down.¹² In fact, for plantation workers, such circumstances had broken down at least by the eighteenth century. Thus was the result of modern industrial capitalism previewed in eighteenth-century Dutch images of Suriname.



Figure 1. Joan Blaeu, *Paranambucæ pars Borealis*, in *Le Grande Atlas*, vol. XII. Amsterdam, Joan Blaeu, 1667. Copy of same in *Rerum per octennium in Brasilia*, Amsterdam: J. Blaeu, 1647, hand-colored engraving, 53.3 x 40.6 cm. (artwork in the public domain)



Figure 2. Frans Post, *Hydro-powered Sugarmill in Brazil*, brown ben, brown and gray wash, black chalk. 143 x 282 mm. Royal Museum of Fine Arts, Belgium. Inv. # 4060 / 2888

Sugar production had been pictured and described in print from the beginning of Dutch involvement in the enterprise. Since the conquest of Pernambuco in Brazil in 1630 and the arrival of Johan Maurits van Nassau-Siegen in 1637, images and information on production were printed for European consumption, most notably in Barlaeus's *Rerum per octennium in Brasilia* (1647) and Willem Piso and Georg Marcgraf's *Historia Naturalis Brasiliae* (1648). Both were projects completed under the patronage of Johan Maurits. Perhaps best known are the images of colonial sugar production by Frans Post, based on his time in Brazil (1637–43) as an artist-in-residence for Johan Maurits. As governor of Dutch Brazil from 1636 to 1644, Johan Maurits commissioned artists and scientists to catalogue the land and its resources.¹³

Post provided the sketch that decorated the map of Pernambuco in the *Rerum per octennium in Brasilia* (*History of Eight Years in Brazil*) (fig. 1). Published by Joan Blaeu as part of Barlaeus's folio documenting and praising Johan Maurits's governorship, Post's vignette is also part of Blaeu's multisheet wall map of Brazil. The map shows the hydro-powered sugar mill in a vignette used to clarify the purpose of the Dutch in Pernambuco: sugar (fig. 2). The picture emphasizes the mill, relegating the human labor to small, seemingly insignificant components of the whole operation. To the left, African slaves lead ox-carts filled with already-cut cane to the mill. The road leading to the mill shows a Portuguese woman being carried to the plantation by her slaves, led by what must be the plantation's owner. Behind the mill their two-story plantation house can be seen. There, more slaves raise their hands to greet the homecoming of the owners. This image provides a view of the sugar operations that sanitizes and mitigates the awful reality of the forced labor necessary to run the mills; viewers are distanced physically and emotionally from the labor.¹⁴ Instead the vignette emphasizes the efficiency and harmony of the plantation, with the mill as its center.

In Piso's natural history, the process of sugar production is described and pictured in a sequence of woodcuts (fig. 3). The first illustration shows an ox-powered mill. Africans drive the cattle and press the cane, while two Dutch men oversee their labor. In the eighteenth century, these Dutch figures, and indeed, most humans, will be eradicated from such scenes of production, and the central subject becomes the mill-as-machine. The scenes with Africans at first seem benign: generally, they are not shown working, but rather dancing or resting, often in scenes separate from the mill. However, underlying the surface is the reality that these were slaves, and that these are depictions of human capital, with the potential for work (fig. 3).

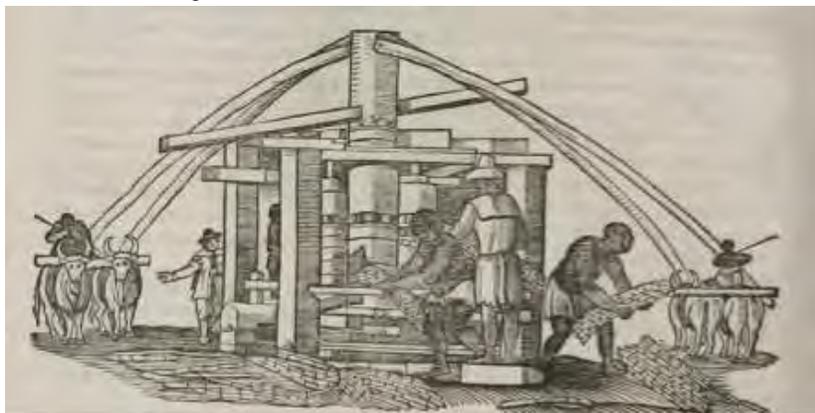


Figure 3. *Ox-Driven Sugarmill in Brazil*, woodcut illustration, p. 108 from Willem Piso *Historia Naturalis Brasiliae* (Amsterdam, 1648). (artwork in the public domain)

Later accounts of Brazil by Dutch travelers and those from Suriname perpetuated the “objective” description of the mechanics of sugar production, focusing on the machine and efficiency, only mentioning slaves as a necessary part of the whole systematic process.¹⁵ The type of mill typically used on sugar plantations had three cylinders. The central cylinder, driven by water or animal, rotated in the opposite direction from the outside cylinders. The cylinders pressed the sugar cane to extract the juice, which was then boiled into syrup in kettles over extremely hot fires in the *ketelhuis*. Laborers were needed to cut the cane and feed the pieces between the rollers, as shown in both Post's and Piso's pictures. Both tasks were difficult, and the latter was extremely dangerous, with a risk of losing limbs and life. In the *Rerum per octennium in Brasilia*, Barlaeus seems to have viewed enslaving Africans as unavoidable—at least, unavoidable in order to be efficient and generate a profit from sugar—although he acknowledged the difficulty of the labor. He wrote that “Negroes, who must be bought, are needed to do the work in the sugar mills and the fields. No matter how physically strong our people are, once transferred here they cannot tolerate this labor.”¹⁶

Like the images of Brazil, images of Suriname plantations created in the eighteenth century were meant to be descriptive information sources as well as encomia to their patrons, who prized the first-hand accounts.¹⁷ They implicitly impart a narrative of ownership that privileges a rational, mechanized system of production. In 1706, Dirk Valkenburg was commissioned by Jonas Witsen to create visual representations of his three plantations in Suriname.¹⁸ Valkenburg was asked to catalogue the rich natural resources owned by Witsen, and he focused his Surinamese paintings on still lifes and landscapes. Sketches extant in the Rijksmuseum show Valkenburg's preference for the edifices of Witsen's plantations, rather than the laborers. Indeed, Valkenburg seems to inventory the buildings as evidence of the productive capacity of Witsen's land. In the drawing here, he depicted the mill and cookhouse, *dram* house (4) and slave house (5) from the riverside (fig. 4). Only two small figures, distinguishable as a female and child, are shown. Similarly, Valkenburg's painting of one of Witsen's plantations from around 1707 shows a reed hut in the middle ground (fig. 5). In the distance, Dutch-style brick buildings with gabled roofs and windows—the plantation house or processing facilities—provide a contrast to the huts. Five figures crouch in the foreground near the hut. Bundled reeds appear in the left foreground among growing reeds and palm trees. This is a landscape full of productive capacity and consumable resources, tamed and ready for cultivation and colonization.



Figure 4. Dirk Valkenburg, *View of a Mill and Cook-house on a Plantation in Surinam*, 1708. Pen and pencil on paper, 19.6 x 34.1 cm. Rijksmuseum, Amsterdam. RP-T-1905-103. (artwork in the public domain.)



Figure 5. Dirk Valkenburg, *Plantation in Surinam*, c. 1707. Oil on canvas, 52.5 x 45.4 cm (20.7 x 17.9 in). SK-A-4075. Rijksmuseum, Amsterdam. (artwork in the public domain)

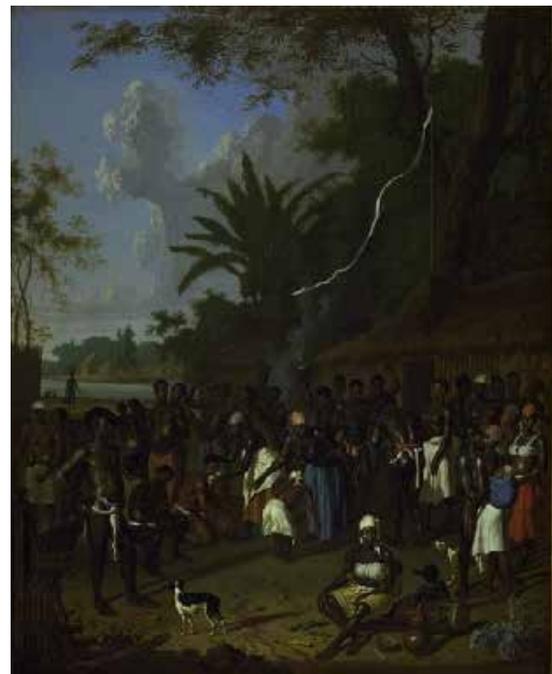


Figure 6. Dirk Valkenburg, *Slave Dance*, 1706-1708. Oil on canvas, 58 x 46.5 cm. National Gallery of Denmark, Copenhagen Inv.# KMS376

Valkenburg's contemporaneous *Slave Dance* shows enslaved Africans gathered for dance and ritual, pointedly *not* working Witsen's fields (fig. 6). They form a semicircle in front of a stick-and-grass hut. In the far distance are the yellow-brick Dutch buildings. Rebecca Brienen has convincingly argued that Valkenburg's stylized depiction of the Africans' bodies and their glossy surfaces served to objectify them and allowed the paintings—and the slaves depicted—to become both commodities and empirically described wonders fit for inclusion in the collection of Witsen.¹⁹ Like the drawings of the plantation buildings, the paintings show an inventory of Witsen's capital, and thereby, his capacity for production. In his paintings and drawings, Valkenburg recorded Witsen's land and its resources, both natural and human. The domiciles and activities of the people depicted are, like the land on which they stand, owned by the planter. His presence is indicated only by the sturdy Dutch architecture in the background, which serves as a reminder of his possession and control. He possesses not only the pictures but their content in reality. Perhaps by showing slaves with their huts, the images could also have served as evidence for how well he cared for his property—an important rhetorical point in the justification of slavery.



Figure 7. Plate 2 from J.D. Herlein, *Beschryvinge Van De Volk-Plantinge Zuriname* (LeeuwardMeindert Injema, 1718). (artwork in the public domain)

In prints, the focus shifts from these plantation views of capital to the specifics of efficient mechanical sugar production. J. D. Herlein's *Beschryvinge Van De Volk-Plantinge Zuriname* (*Description of the Plantations of Suriname*) of 1718 was one of the first printed Dutch books describing Suriname.²⁰ The account is based on the author's time in Suriname in the first decade of the eighteenth century. He dedicated the volume to the directors of the Society of Suriname, with special praise given to former governor of the colony Paul van Veen. In keeping with the privileging of rationalism and positivism, Herlein notes in the dedication that organization and clarity are an important aspect of his work. He writes—albeit not very clearly or concisely—that he aspires to present an uncomplicated description of his observations, with the main points brought together efficiently.²¹ The engravings that accompany his account follow this desired rationality and tidiness. In the plate showing the sugar mill, the mill complex is displayed as a diagram devoid of any human operators (fig. 7). Like Valkenburg, Herlein labeled each building depicted: The foremost building presents the sugar-processing facilities, including the mill (B), the boiling room (*stook-huis*, C), and storehouse (*magazijn*, D). Directly behind the mill lies the planter's house (A); in the distance, on the left side of the horizon, squat the Africans' huts (*neger huisjes*, E).



Figure 8. Plate 3 from J.D. Herlein, *Beschryvinge Van De Volk-Plantinge Zuriname* (Leeuwarden: Meindert Injema, 1718). (artwork in the public domain)

In addition to this plate, Herlein's description includes four other engravings and a map. In the third plate, a male and female African slave (*neger and negerinne*) rest among sugar cane. The nearly nude male stands with a shovel in one hand, and cut cane and a machete in the other hand (fig. 8). He looks passively at the cane. The woman is bare-breasted, adorned only with beads and a knee-length skirt. She reclines against a tree with her right hand on her thigh, her left hand resting on a basket of fruit. Although both individuals hold symbols of their work (the shovel, machete, cane, and basket of fruit), neither is actually shown working.²² Here, as in Valkenburg's drawings and paintings, the subject implies the capacity for work, rather than production itself. That is represented by the machine, shown in a separate plate.

About fifty years later, a member of Suriname's Council of Criminal Justice, Thomas Pistorius, published the *Korte en zakelyke beschryvinge van de colonie van Suriname* (*Short and True Description of the Colony of Suriname*) (1763), which was written both for the plantation owners and merchants back in Amsterdam. The importance placed on efficiency of production here extended to the publisher's thrifty use of copperplate—two plates contain five separate scenes. In plate three, the scene on the top left shows slaves cutting and transporting cane (fig. 9). A black overseer in the middle holds up a whip. To the right is the hydro-powered mill. Africans here also carry cane from the field and unload it from the little pirogue in the channel. The slaves' figures are homogenous. They are hardly more than bodies, parts in a system, necessary to cut and transport the cane to the mill. The fourth plate details the sugar-processing facilities with a diagram of the water mill and a depiction of the boiler room. Strikingly, it does not show the dangerous tasks assigned to the slaves: to press the cane between the rollers, stir the boiling hot syrup, and separate the *dram* (fig. 10). Like Herlein, Pistorius describes aspects of production but does not describe its possible harm—not even as a potential cost in the loss of a slave (although the expense of keeping slaves was recounted in both texts).



Figure 9. Plate 3 from Thomas Pistorius, *Korte En Zakelyke Beschryvinge Van De Colonie Van Suriname* (Amsterdam: Theodorus Crajenschot, 1763). (artwork in the public domain)



Figure 10. Plate 10 from Thomas Pistorius, *Korte En Zakelyke Beschryvinge Van De Colonie Van Suriname* (Amsterdam: Theodorus Crajenschot, 1763). (artwork in the public domain)

In contrast, French physician and abolitionist Philip Fermin's *Description generale . . . de la colonie de Surinam* (*Nieuwe algemeene beschryving van de colonie van Suriname*), published in Amsterdam in French in 1769, and in Dutch in 1770, does indicate the potential for harm:

The Negroes need to be on their guard to keep their fingers from coming too close to the rollers, for accidents have happened . . . particularly at night, since the Negroes lack sleep and are assaulted by the heavy work, which they did by day . . . [O]n the table of the mill there is a sharp machete ready, in case the Negro, in his state, should be caught between the rollers whereby they can chop off his arm, in order to spare his life, for . . . so great is the pulling force, particularly in the water mills, whose racing motion cannot be stopped.²³

Still, it is the mechanization of sugar processing that is shown in two separate engravings that depict water- and beast-powered mills (figs. 11 and 12). The water mill has no humans present; the beast-powered mill includes Africans moving cane and guiding the horses. Underlying the repetitive focus on machine, slaves, and land in these images is the glorification of rationality and technology, a systematic mode of production. Clarifying what the images suggest, in 1765, the Englishman Samuel Martin wrote that “a plantation ought to be considered as a well-constructed machine, compounded by various wheels, turning different ways, and yet all contributing to the great end proposal.”²⁴ Presumably, the “proposal” was profit.

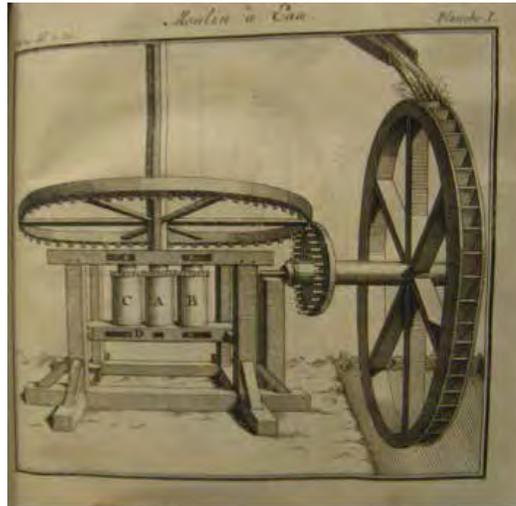


Figure 11. Plate 1 from Philip Fermin, *Description generale, historique, géographique et physique de la colonie de Surinam ... / par Philippe Fermin, docteur en medecine*. (Amsterdam: E. van Harrevelt, 1769). (artwork in the public domain)



Figure 12. Plate 2 from Philip Fermin, *Description generale, historique, géographique et physique de la colonie de Surinam* (Amsterdam: E. van Harrevelt, 1769). (artwork in the public domain)

During the five decades between Valkenburg’s time in Suriname and that of Pistorius, the demographics there began to shift dramatically. In 1667 there were twenty-three plantations; in 1780, 450.²⁵ Around 1700, some 700 people of European origin were living in Paramaribo and the plantations along the Suriname, Commewijn, and Cottica Rivers, while 8,500 enslaved Africans worked the sugar plantations. The number of the latter increased six fold by the end of the eighteenth century, when more than 60,000 enslaved Africans were producing sugar, as well as coffee, chocolate, cotton, and timber.²⁶ Also significant was the increasing absenteeism of plantation owners.²⁷ By the end of the eighteenth century, most plantations were run by men without families, working under contract for the owner in the Netherlands. The prints and paintings discussed above provided the plantation owners in Holland information,

and significantly, they also reinforced their sense of power and legitimacy through depictions of “objective,” rational, mechanized systems of production.

That images have been used to claim truth and objectivity in the scenes portrayed, even while denying or veiling alternative realities is a phenomenon as pertinent today as in the eighteenth century. The images of Surinam discussed here were meant to present a veristic pictorial description of the colony, but these corporate views of property—land, buildings, machines, slaves—served instead to sanitize both the elites’ accumulation of capital and the system by which they obtained the components of that capital.

ACKNOWLEDGMENTS

Many thanks are due to Alison Kettering for her care and mentorship throughout my scholarly career. I am also grateful to Kathleen Ryor and Dawn Odell for their support of this project and to the anonymous reviewer for helpful comments and suggestions for improvement of the manuscript.

Elizabeth Sutton is Assistant Professor of Art History at the University of Northern Iowa. She studied with Alison Kettering at Carleton College before completing her PhD under Julie Hochstrasser at the University of Iowa. The author of Early Modern Dutch Prints of Africa (Aldershot: Ashgate, 2012), she has also published articles on Dutch travel accounts and maps. Her next book, Capitalism and Cartography in the Dutch Golden Age, is forthcoming. She is currently working on the representation of animals in Dutch prints and paintings.

LIST OF ILLUSTRATIONS

Figure 1. Hand-colored engraving, 53.3 x 40.6 cm. From Caspar Barlaeus, *Rerum per octennium in Brasilia* (Amsterdam: J. Blaeu, 1647). Also published as *Paranambucæ pars Borealis* in *Le Grande Atlas*, vol. 12 (Amsterdam: Joan Blaeu, 1667) (artwork in the public domain)

Figure 2. Frans Post, *Hydro-powered Sugar Mill in Brazil*, brown pen, brown and gray wash, black chalk, 143 x 282 mm. Brussels, Koninklijke Musea voor Schone Kunsten van België, inv. no. 4060 / 2888 (artwork in the public domain)

Figure 3. *Ox-Driven Sugar Mill in Brazil*, woodcut illustration. Page 108 from Willem Piso, *Historia Naturalis Brasiliæ* (Amsterdam, 1648) (artwork in the public domain)

Figure 4. Dirk Valkenburg, *View of a Mill and Cook-house on a Plantation in Suriname*, 1708, pen and pencil on paper, 19.6 x 34.1 cm. Amsterdam, Rijksmuseum, inv. no. RP-T-1905-103 (artwork in the public domain)

Figure 5. Dirk Valkenburg, *Plantation in Suriname*, ca. 1707, oil on canvas, 52.5 x 45.4 cm. Amsterdam, Rijksmuseum, inv. no. SK-A-4075 (artwork in the public domain)

Figure 6. Dirk Valkenburg, *Slave Dance*, 1706–8, oil on canvas, 58 x 46.5 cm. Copenhagen, National Gallery of Denmark, inv. no. KMS376 (artwork in the public domain)

Figure 7. Plate 2 from J. D. Herlein, *Beschryvinge van de volk-plantinge Zuriname* (Leeuwarden: Meindert Injema, 1718) (artwork in the public domain)

Figure 8. Plate 3 from J. D. Herlein, *Beschryvinge van de volk-plantinge Zuriname* (Leeuwarden: Meindert Injema, 1718) (artwork in the public domain)

Figure 9. Plate 3 from Thomas Pistorius, *Korte en zakelyke beschryvinge van de colonie van Zuriname* (Amsterdam: Theodorus Craijenschot, 1763) (artwork in the public domain)

Figure 10. Plate 4 from Thomas Pistorius, *Korte en zakelyke beschryvinge van de colonie van Zuriname* (Amsterdam:

Theodorus Crajenschot, 1763) (artwork in the public domain)

Figure 11. Plate 1 from Philip Fermin, *Description generale, historique, geographique et physique de la colonie de Surinam . . . / par Philippe Fermin, docteur en medecine*. (Amsterdam: E. van Harrevelt, 1769) (artwork in the public domain)

Figure 12. Plate 2 from Philip Fermin, *Description generale, historique, geographique et physique de la colonie de Surinam* (Amsterdam: E. van Harrevelt, 1769) (artwork in the public domain)

BIBLIOGRAPHY

- Baerle, Caspar van. *The History of Brazil under the Governorship of Count Johan Maurits of Nassau 1635-1644*. Translated with notes and an introduction by Blanche T. van Berckel-Ebeling Koning. Gainesville: University Press of Florida, 2011.
- Boogaart, Ernst van den, H. R. Hoetink, and P. J. P. Whitehead, eds. *Johan Maurits Van Nassau-Siegen 1604-1679: A Humanist Prince in Europe and Brazil*. The Hague: Johan Maurits van Nassau Stichting, 1979.
- Brienen, Rebecca Parker. "Embodying Race and Pleasure: Dirk Valkenburg's Slave Dance." In *Nederlands Kunsthistorisch Jaarboek: Body and Embodiment in Netherlandish Art*, edited by Ann-Sophie Lehman and Herman Roodenburg, 242-64. Zwolle: Waanders, 2008.
- Eeghen, C. P. van. "Dirk Valkenburg, Boekhouder, Schrijver, Kunstschilder voor Jonas Witsen." *Oud Holland* 61 (1946): 58-69.
- Goslinga, Cornelis. *A Short History of the Netherlands Antilles and Surinam*. The Hague: M. Nijhoff, 1979.
- Fermin, Philip. *Nieuwe algemeene beschryving van de colonie van Suriname: behelzende al het merkwaardige van dezelve, met betrekkinge tot de historie, aardryks- en natuurkunde*. Harlingen: V. van der Plaats, Junior, 1770.
- Herlein, J. D. *Beschryvinge van de volk-plantinge Zuriname . . .* Leeuwarden: Meindert Injema, 1718.
- Hochstrasser, Julie. *Still Life and Trade in the Dutch Golden Age*. New Haven and London: Yale University Press, 2007.
- Israel, Jonathan. *Dutch Primacy in World Trade 1585-1740*. New York: Oxford University Press, 1989.
- Kalberg, Stephen. "Introduction to the Translation." In *The Protestant Ethic and the Spirit of Capitalism*. Chicago: Fitzroy Dearborn, 2001.
- Kettering, Alison McNeil. "Men at Work, or Keeping One's Nose to the Grindstone." *Art Bulletin* 89, no. 4 (2007): 694-714.
- Kolfin, Elmer. *Van de slavenzweep en de muze*. Leiden: KITLV, 1997.
- Lier, R. A. J. van. *Frontier Society: A Social Analysis of the History of Surinam*. Translated by Maria J. L. van Yperen. The Hague: Martinus Nijhoff, 1971.
- Massing, Jean Michel. "From Dutch Brazil to the West Indies: The Paper Image of the Ideal Sugar Plantation." In *Fragments: Architecture and the Unfinished; Essays Presented to Robin Middleton*, edited by Bergdoll, Barry and Werner Oechslin, 275-88. New York: Thames & Hudson, 2006.
- Miert, D. K. W. van. *Humanism in an Age of Science: The Amsterdam Athenaeum in the Golden Age, 1632-1704*. Studies in Intellectual History 179. Boston: Brill, 2009.

Pistorius, Thomas. *Korte en zakelyke beschryvinge van de colonie van Suriname . . .* Amsterdam: Theodorus Crajen-schot, 1763.

Schendel, A. van. "Een Stille Plantage in Suriname, Door Dirck Valkenburg, 1707." *Bulletin van het Rijksmuseum* 11, no. 3 (1963): 80–86.

Vries, Jan de, and Ad van der Woude. *The First Modern Economy: Success, Failure, and Perseverance of the Dutch Economy, 1500–1815*. New York: Cambridge University Press, 1997.

Whitehead, P. J. P. *A Portrait of Dutch 17th Century Brazil*. Amsterdam/Oxford/New York: North Holland Publishing, 1989.

Wallerstein, Immanuel. *The Modern World System II: Mercantilism and the Consolidation of the European World-Economy 1600–1750*. Berkeley: University of California Press, 2011.

¹ "Modern" capitalism implies a relatively free exchange of goods in markets, the separation of business activity from household activity, sophisticated bookkeeping methods, and the rational organization of work, where profit is pursued systematically, as is the maximization of profit. Stephen Kalberg, "Introduction to the Translation," in *The Protestant Ethic and the Spirit of Capitalism* (Chicago: Fitzroy Dearborn, 2001), xvii–xviii.

² See Elmer Kolfin, *Van de slavenzweep en de muze* (Leiden: KITLV, 1997); Rebecca Parker Brienens, "Embodying Race and Pleasure: Dirk Valkenburg's Slave Dance," *Nederlands Kunsthistorisch Jaarboek: Body and Embodiment in Netherlandish Art*, ed. Ann-Sophie Lehman and Herman Roodenburg (Zwolle: Waanders, 2008), 242–64; and Jean Michiel Massing, "From Dutch Brazil to the West Indies: The Paper Image of the Ideal Sugar Plantation," in *Fragments: Architecture and the Unfinished; Essays Presented to Robin Middleton*, ed. Barry Bergdall and Werner Oechslin (New York: Thames & Hudson, 2006), 275–88. The emphasis on the process and the machine, rather than the slaves' manual labor is discussed specifically by Kolfin, *Van de slavenzweep*, 37–38.

³ For more on the Dutch role in the sugar trade and its representation, see especially Julie Hochstrasser, *Still Life and Trade in the Dutch Golden Age* (New Haven: Yale University Press, 2007), 187–204.

⁴ Suriname was initially administered by the States of Zeeland, then the WIC, and after 1682, the Chartered Society of Suriname (Geocroyeerde Societeit van Suriname). The Society came into existence after the city of Amsterdam and Cornelis van Aerssen van Sommelsdijk each purchased a third of the territory, leaving one-third to the WIC, to whom the States of Zeeland had sold Suriname to for 260,000 florins. R. A. J. van Lier, *Frontier Society: A Social Analysis of the History of Suriname*, trans. Maria J. L. van Yperen (The Hague: Martinus Nijhoff, 1971), 19.

⁵ See especially, Immanuel Wallerstein, *The Modern World System II: Mercantilism and the Consolidation of the European World-Economy 1600–1750* (Berkeley: University of California Press, 2011).

⁶ Jonathan Israel, *Dutch Primacy in World Trade 1585–1740* (New York: Oxford University Press, 1989), 265; Jan de Vries and Ad van der Woude, *The First Modern Economy: Success, Failure, and Perseverance of the Dutch Economy, 1500–1815* (New York: Cambridge University Press, 1997), 326.

⁷ De Vries and Van der Woude, *The First Modern Economy*, 465–66.

⁸ De Vries and Van der Woude, *The First Modern Economy*, 327–29; 480.

⁹ Massing, "From Dutch Brazil to the West Indies", 277–81; see also Kolfin, *Van de slavenzweep*, 29–30.

¹⁰ Alison McNeil Kettering, "Men at Work, or Keeping One's Nose to the Grindstone," *Art Bulletin* 89, no. 4 (2007): 694.

¹¹ Barlaeus affirmed burghers' aspirations to wealth gained by trade within a neo-Stoic framework. For a summary of the address in English, see D. K. W. van Miert, *Humanism in an Age of Science: The Amsterdam Athenaeum in the Golden Age, 1632–1704*, *Studies in Intellectual History* 179 (Boston: Brill, 2009), 225–28.

¹² Kettering, "Men at Work," 709–10.

¹³ For more on Johan Maurits, see especially P. J. P. Whitehead, *A Portrait of Dutch 17th Century Brazil*, (Amsterdam/Oxford/New York: North Holland Publishing, 1989) and Ernst van den Boogaart, H. R. Hoetink, and P. J. P. Whitehead, eds., *Johan Maurits Van Nassau-Siegen 1604–1679: A Humanist Prince in Europe and Brazil* (The Hague: Johan Maurits van Nassau Stichting, 1979).

¹⁴ Hochstrasser notes that Post's drawing and his later paintings are visually and emotionally distanced from the sugar processing. Hochstrasser, *Still Life and Trade*, 195–96.

¹⁵ On Joan Nieuhof's 1682 description of Brazil, see Hochstrasser, *Still Life and Trade*, 191–92.

¹⁶ "They tolerate hard labor very well, and need little in the way of food. Born as though destined to endure natural hardships and the miseries of slavery, they are traded for large sums of money." Caspar van Baerle, *The History of Brazil under the Governorship of Count Johan Maurits of Nassau 1635–1644*, trans. Blanche T. van Berckel-Ebeling Koning (Gainesville: University Press of Florida, 2011), 63, 124.

¹⁷ Maria Sibylla Merian contemporaneously inventoried nature by documenting insects of Suriname in the *Metamorphosis Insectorum Surinamensium*, published with help from Cornelis van Aerssen van Sommelsdijk in 1705.

¹⁸ Brienen, "Embodying Race and Pleasure," 242–64; A. van Schendel, "Een Stille Plantage in Suriname, door Dirck Valkenburg, 1707," *Bulletin van het Rijksmuseum* 11, no. 3 (1963): 80–86, and C. P. van Eeghen, "Dirk Valkenburg, Boekhouder, Schrijver, Kunstschilder voor Jonas Witsen," *Oud Holland* 61 (1946): 58–69.

¹⁹ Brienen, "Embodying Race and Pleasure," 242–64.

²⁰ Others include Adriaen van Berkel's *Amerikaansche voyagien, behelzende een reis na Rio de Berbice . . .*, from 1695. Berkel's account of Suriname was largely copied from the English author George Warren's *An Impartial Description of Suriname upon the continent of Guinea in America*, from 1667, and includes no engravings pertaining to Suriname, sugar, or slavery.

²¹ "U. Ed. Hebben niet te zien op een Historiaale stijl of Romansche schets, dewijl door verdeeltheden van veranderende Materien alleen hebbe gememorieert, en beknoptelijk alles in zijn zamen-hang en Hoofd-delen gebragt. . . Dies zo veel doenelijk, zonder megeling van bastartwoorden, voortgevaren . . ." J. D. Herlein, *Beschryvinge van de volk-plantinge Zuriname* (Leeuwarden: Meindert Injema, 1718).

²² The contrast of "labor and leisure" had many precedents, as both Brienen and Elmer Kolfin have shown. Brienen, "Embodying Race and Pleasure," 248–51; Kolfin, *Van de slavenzweep*, 33–38.

²³ "de moeten wel op hunne hoede zijn, van met de vingers niet te dicht bij de rollen te komen; want het zou onmogelijk zijn, iemand, die zulk een ongeluk overkwam, te behouden, gelijk me meer dan eens gezien heeft, inzonderheid bij nacht, als de Negers van den slaap overvallen worden, door het zware werk, welk zij bij dag gedaan hebben. Om diergelijk ongevallen, gedeeltelijk, voor te komen, is het volstrekt noodzaakelijk, altijd op de tafel van den Molen een bloote en scherpe sabel gereed te hebben, ten einde de Neger, die naast den geenen staat, welke tussen de rollen mocht gevat zijn, hem terstont den arm af kan hakken, om hem in het leven te sparen; want het is, mijns bedunkens, beter een lid te verliezen, dan geheel en al tussen de rollen te geraken, het wel onfeilbaar gebeuren zoude; zo groot is derzelve trekkende kracht, vooral in de water molens, wier beweging zo ras niet tegen gehouden kan worden, als van de andere molens, gelijk men ligtelijk kan denken." Philip Fermin, *Nieuwe algemeene beschryving van de colonie van Suriname*, book II, 20–22.

²⁴ Quoted in Massing, "From Dutch Brazil to the West Indies," 276.

²⁵ Cornelis Goslinga, *A Short History of the Netherlands Antilles and Surinam* (The Hague: M. Nijhoff, 1979), 100.

²⁶ Goslinga, *A Short History*, 100.

²⁷ Van Lier, *Frontier Society*, 54–58.

Recommended Citation: Elizabeth Sutton, "Bittersweet: Sugar, Slavery, and Science in Dutch Suriname," *Midwestern Arcadia: Essays in Honor of Alison Kettering* (2015) DOI: 10.18277/makf.2015.13

