

Squaring the Circle: The Violence of Environmental Form in the Colonial Caribbean

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To square the circle implies an achievement of the impossible, a metaphor derived from an antique mathematical problem unsolved into the modern era. The premise is as follows: construct a square with the same area as a given circle using a compass and straightedge in a finite number of steps. Over the course of the eighteenth century, myriad solutions and applications were proposed from throughout the Atlantic world. During the Enlightenment frenzy for structural knowledge that approached its zenith in the eighteenth century, squaring the circle was not merely an alluring mathematical paradox but already employed as a philosophical problem. It promised an ultimate proof of reason's capacity to suffuse throughout nature's infinite and uncertain variables to order and exert Man's control over them and thereby his natural supremacy.¹ The metaphorical investigation of this mathematical conundrum extended beyond an abstract proof of (White, European) reason's ability to bring nature under Man's

¹ Petr Beckmann, *A History of π (Pi)* (Boulder: Golem, 1970); Alexander Bird, "Squaring the Circle: Hobbes on Philosophy and Geometry," *Journal of the History of Ideas* 57, no. 2 (1996): 217–31; Sylvia Wynter, "Unsettling the Coloniality of Being/Power/Truth/Freedom towards the Human, after Man, Its Overrepresentation—An Argument," *CR: The New Centennial Review* 3, no. 3 (2003): 257–337.

Content Advisory: This essay discusses and reproduces images of anti-Black violence in the form of execution. I have chosen not to reproduce several images discussed at length in this essay because of their brutality. They, along with other supplemental contextual images, are included in a post on the *Small Axe* blog, smallaxe.net/blog.

sway and into scales across territorial and corporeal conquest (with colonization and enslavement as results). Attempts to apply this problem to solve the measurement of longitude for maritime navigation and colonization were the most direct example.² But alas, although many mathematicians approximated solutions, the problem itself was only proven impossible in the following century, when it was shown that a mathematically perfect circle cannot be drawn in a *finite number of steps* because it requires an *infinite* number of points on its circumference to accurately represent its curvature, much like the infinite number of significant figures associated with the *transcendental irrational* constant pi (π) that describes the relationship between the circumference of the circle and its diameter.

I begin with this incident in the history of geometry because it speaks to the pernicious depths of European rationalist colonial epistemes in the Caribbean beyond, and in conjunction with, the materiality of bellicose territorial acquisition and the corporeal violence of enslavement. If the circle (the globe) could be squared (subjected to the predictable regularity of the plane), then the planet could be comprehended, that is, seized, occupied, or held together by the epistemological force of European coloniality. The equation's concealed claim to transcend the limitations of scale and order the world through pure mathematical form found a corollary in the Caribbean plantation. Here, the illusion of complete authority was achieved through coextensive ecological and corporeal violence—the mass deforestation and soil degradation of cash crop monocultures were intimately linked to the enslavement of Africans that positioned Blackness as a degraded form of human animality destined for servitude. While expressed in visual terms less trafficked by historians of art, colonialism, and the transatlantic slave trade, squaring the circle—as an abstract mathematical problem, applied solution, and philosophical metaphor—compels the investigation of European colonization to begin from form itself. Reading for form in the eighteenth-century Caribbean engenders the possibility to peer through the veil of colonial discourse to even its most obfuscated forms of violence.

The anti-Black violence of the archive, however, is never far from the “uncomfortable mathematics of black life,” as Katherine McKittrick argues.³ Drawing together a diverse range of sources from the eighteenth-century Caribbean visual archive—including maps, drawings, prints, and paintings—reckons colonial space differently, such that the mathematical operations of abstracting colonial violence into the illusion of totalizing order could not produce an incontrovertible solution. Rather, the materiality of Blackness challenges the results of this geometrical operation. Blackness's necessary-yet-occluded presence in these visual contestations of form from the Caribbean enacts additional operations in what Denise Ferreira da Silva derives as the “equation of value.” This equation is meant to “break away from the

2 Royal Greenwich Observatory Archives, “Minutes of a Meeting Held on the 26th of February 1763,” *Confirmed Minute of the Board of Longitude*, 1737–79, RGO 14/15, n.p. (52 in digitized version, cudl.lib.cam.ac.uk/view/MS-RGO-00014-00005/52); Augustus De Morgan, “A Budget of Paradoxes, cont.,” *Assurance Magazine* 12, no. 1 (1864): 32–48; James E. McClellan III, *Colonialism and Science: Saint-Domingue in the Old Regime* (Chicago: University of Chicago Press, 2010), 174–75.

3 Katherine McKittrick, “Mathematics of Black Life,” *Black Scholar* 44, no. 2 (Summer 2014): 19.

enclosures of modern thought” and reach for “the Thing, which is the referent of blackness, or that which in it is exposed as the excess that justifies otherwise untenable racial violence.”⁴ Where da Silva develops her own mathematic-philosophic operation, squaring the circle in the eighteenth-century Caribbean had already produced a paradox capable of both promising total colonial order and undermining that promise with the possibility of what McKittrick calls a “black sense of place.” When reading from form, the violence that seems inherent to the colonizing spatialization of geometry is not without contestation. To identify a “black sense of place” within and beyond the same forms imposed to divest Black people from any space “brings into focus the ways in which racial violences . . . shape, but do not wholly define, black worlds.”⁵

This essay elucidates the tension between the circle and the square in two instances where abstract form overlaid the Caribbean environment during the eighteenth century as a means of accentuating the scale of colonial power in the absence of an aesthetics capable of reconciling its terrific violence (as both magnitude and terror). While this essay claims form as a mode of both colonial violence and Black endurance throughout the eighteenth-century plantation zone, stretching from Brazil to North America, I draw together two imperial contexts where the tension between the square and circle was produced not only as an abstract mathematical problem but also as a problem of colonial visibility.⁶ This essay will first address the colonial violence of quadrature in the eighteenth-century Danish West Indies. I look to early maps to interrogate the violence of cartographic rectangularity in the Danish *Agre* (or acre)—a unit of measure invented and implemented only on St. Croix to measure property boundaries for taxation—alongside the icon of the gallows as a coconstitutive site of Black death. In the second section, I shift this colonial square-circle relation to French Saint-Domingue, where the quadrature of a circle emerged as a site of racialized ecological colonization employed in textual and visual discourse. Where the violent angularity of the square and rectangle was projected onto the landscape as a colonial *fait accompli* in the Danish West Indies, the human-scaled circle was projected against the land-scaled square in Saint-Domingue to affirm colonial authority. I draw in additional images from the anglophone and lusophone plantation zone to demonstrate these formal conceits that elided their capacity to act as forms of contestation within the same landscape. When we are attuned to the interrelated manifestations of the circle and the square that traverse the immaterial “purity” of mathematics and the cadastral cartography of colonial property, the materiality of Black geographies persists, as Rizvana

4 Denise Ferreira da Silva, “1 (Life) ÷ 0 (Blackness) = ∞ – ∞ or ∞ / ∞: On Matter beyond the Equation of Value,” *e-flux Journal* 79 (2017), www.e-flux.com/journal/79/94686/1-life-0-blackness-or-on-matter-beyond-the-equation-of-value.

5 Katherine McKittrick, “On Plantations, Prisons, and a Black Sense of Place,” *Social and Cultural Geography* 12, no. 8 (December 2011): 947.

6 Nicholas Mirzoeff, *The Right to Look* (Durham: Duke University Press, 2011), xv. Mirzoeff’s capacious approach to the visual archives of “enslaved, formerly enslaved, subaltern, or colonial subjects” is an integral visual studies / art historical approach to reading images without substantive archival support. I continue to build upon Mirzoeff’s assertion that visibility is “both a medium for the transmission and dissemination of authority, and a means for the mediation of those subject to that authority.”

Bradley articulates, “in the abyssal cut between black existence and black nonbeing, between the dissimulated ‘black body’ and enfleshment.”⁷

In the two investigations that follow, “squaring the circle” operates as math, metaphor, and method to locate sites of contestation where colonialism’s violence and Black geographies can be glimpsed in the same frame across the scales of racialized corporeality, juridical violence, and extractive ecologies. To address the circle and square as multiscale and multivalent in the eighteenth-century Caribbean, I begin from an art historical foundation and draw connections between fields in productive debate: Black geography and ecocritical theory, Black critical theory and formalist film theory to refer to these shapes as *environmental forms*. By designating these specific forms as “environmental,” I emphasize their pervasive role in constituting colonialism across scales through the metonym of the plantation. Anna Tsing points to the plantation in her characterization of scalability as “the naturalization of *expansion* as a way for humans to inhabit the earth” that emerged in the modern era.⁸ Scalability projects “banish meaningful diversity, which is to say, diversity that might change things.”⁹ Because environmental form precedes unique signification, the project of squaring the circle could traverse scales from the particular to the general, the pore to the body, the plot to the plantation, the island to the archipelago. From a colonialist perspective this fiction of infinite scalability through formal mathematical abstraction promised authority over the islands in the Caribbean, as Tsing’s critique makes clear. The subfield of Black geography presents the question of scale to “adopt a *relational* understanding of Blackness and space” that has an “analytic location from which to challenge [colonial spatial imaginaries and practices] and articulate different modes of being.”¹⁰ To historicize Black geography also considers “encounter—a difficult inter-relatedness—that promises an ethical analytics of race based not on suffering, but on human life.”¹¹ From this vantage point, the circles and squares that gave forms to colonial violence also entail alternative spatializations that contest coloniality from the persistence of Blackness in the Caribbean landscape.

Attending to the revived interest in formalism across critical theoretical disciplines offers new modes of addressing the interdependency of race and colonial space—ecological, geographic, and aesthetic—as a question of violent geometricity in the Caribbean. In an adjacent mode to Bradley’s anteaesthetics, Eugenie Brinkema’s elaboration of radical formalism

7 Rizvana Bradley, *Anteaesthetics: Black Aesthetics and the Critique of Form* (Stanford: Stanford University Press, 2023), 30; Hortense Spillers, *Black, White, and in Color: Essays on American Literature and Culture* (Chicago: University of Chicago Press, 2003), 206. Bradley draws from Spillers’s distinction between the body and the flesh to make her own distinction of the “‘black body’” and “enfleshment.” They are a central paradox in her elaboration of a critique of formalism and the limits of the aesthetic “because the phenomenological appearance of blackness within the antiblack world is necessarily dissimulative, while the enfleshed existence of blackness is without ontology; relegated by the world to the status of nonbeing.”

8 Anna Lowenhaupt Tsing, “On Nonscalability: The Living World Is Not Amenable to Precision-Nested Scales,” *Common Knowledge* 18, no. 3 (Fall 2012): 506.

9 Tsing, “On Nonscalability,” 507.

10 Camilla Hawthorne and Jovan Scott Lewis, eds., *The Black Geographic: Praxis, Resistance, Futurity* (Durham: Duke University Press, 2023), 10.

11 McKittrick, “On Plantations, Prisons, and a Black Sense of Place,” 948.

polemicalizes a return to “what is essential, foundational, and necessary in formalism itself” that combats form’s relegation to a subordinate status as “the secondary demonstration of a prior phenomenal truth.”¹² This radical formalism activates an analytic approach that relishes the speculative potential opened by reading from form that “cannot secure a gain on its investment through promises of prior and external affordances because aesthetic objects do not immediately render the world.”¹³ Transposing Brinkema’s formalism to the particularities of the early modern Caribbean requires an understanding of these forms’ contextual functions, returning them to an ecological ground freighted with environmental and racialized conditions that pressed against “Man’s overrepresentation” as the cause and effect of the Anthropocene.¹⁴ Brinkema argues for the anteriority of form to all modes of ascriptive meaning. In contradistinction, Rizvana Bradley and Calvin Warren, among others, theorize that Blackness is prior to the forms that would reify the evisceration of Black ontology under the regime of racialization that necessarily produces anti-Black aesthetic and mathematical violence. Bradley describes her “ante-formalism” as addressing the “anteriority of blackness to aesthetic forms” to the extent that Blackness is a limit constituted by the modern construction of race; it is “the condition of (im)possibility for form.”¹⁵ Warren shifts this position from aesthetics into the realm of mathematical form, which “preconditions something like a world to exist at all,” because of its function in modernity as the “*formalization of thinking itself*.”¹⁶ “Mathematics is seductive for thinking because it is *form*,” Warren avers, “and if life is to assume form—to contest anti-black sovereignty—then mathematics offers the promise of reunification.” Yet Warren, like Bradley, rejects this promise of reunifying Blackness with form, aesthetics, and mathematics, “Antiformalism, by contrast, suggests that antiblack violence depends on form to reproduce itself. Pure form is the consequence of perfect death, black death.”¹⁷ Warren and Bradley’s interrelated rejections of formalism from the vantage of Blackness pose necessary challenges and nuances to Brinkema’s proposition of a radical return to form as the root.

Various instantiations of formalism have remained at the center of art historical scholarship in the late twentieth and early twenty-first centuries—even when many of those instances claim to disavow it. Rather than adhere to one or another version of ante- or antiformalism that interrogates the relationship of Blackness to form, this essay maintains an art historical approach to close looking that allows the two to engage cyclically “in the break” of environmental form.¹⁸ On the one hand, form was employed in the eighteenth-century Caribbean to constitute authority over the land through the abstraction of its excessive violence against the

12 Eugenie Brinkema, “Form,” in A. Joan Saab, Aubrey Anable, and Catherine Zuromskis, eds., *A Concise Companion to Visual Culture* (Hoboken: Wiley Blackwell, 2021), 262, 272.

13 Brinkema, “Form,” 267.

14 Brinkema, *Life-Destroying Diagrams* (Durham: Duke University Press, 2021), 22; Wynter, “Unsettling the Coloniality.”

15 Bradley, *Anteaesthetics*, 44.

16 Calvin Warren, “The Catastrophe: Black Feminist Poethics, (Anti)Form, and Mathematical Nihilism,” *Qui Parle* 28, no. 2 (December 2019): 354.

17 Warren, “The Catastrophe,” 357.

18 Fred Moten, *In the Break: The Aesthetics of the Black Radical Tradition* (Minneapolis: University of Minnesota Press, 2003), 72, 140.

ever-present negated variable of the “dissimulated” Black body, to echo Bradley. On the other hand, Blackness inflected these very same forms to endure and contest the plantation’s brutal impositions of geometric regularity through enfleshed geographic relations across modes of Black (non)existence.

Rectangularity, Cadastral and Dead, in Danish Colonial Cartography

Everything is remarkably ordered in the 1754 map of the Danish West Indian island of St. Croix by Jens Michelsen (also called I. M.) Beck (fig. 1). Remarkable not for the order itself but for the nearly perfect rectilinearity that divides the island. Beck’s map epitomizes the Enlightened colonial project of political and epistemological order through the quadrilateral as a compositional ground and spatial unit of measure capable of obfuscating colonialism’s violence across bodily and environmental scales.

The Danish purchased the island from the French West India Company in 1733. It was near the other two islands that comprised the Danish West Indies, St. Thomas and St. John. Unlike theirs, St. Croix’s terrain was flat and comparatively large, making it best suited for the sugar and cotton plantations synonymous with the region. When the founding decree was issued, the Danish West India and Guinea Company made provisions to conduct a full survey of the island that would uniformly divide it into 300 plantation lots, each measuring 2,000 by 3,000

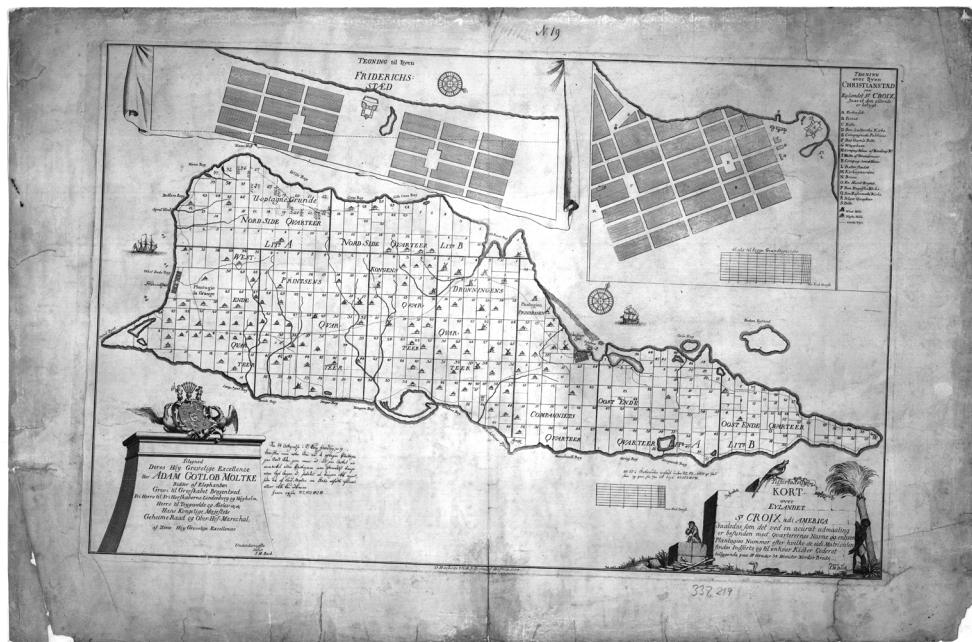


Figure 1. I. M. Beck, *Tilforladelig kort over Eylandet St. Croix udi America*, 1754; engraving, 48 × 73 cm., printed by O. H. de Lode, Copenhagen

Danish feet, referred to as *fuldkommen* (“complete,” “full,” or “perfect”). Overlaying a precise grid of regularized rectangular plots onto an already colonized landscape was without precedent when the survey was conducted on St. Croix between the 1730s and 1750s, predating the beginnings of the rectangular survey of public lands in the United States by half a century.¹⁹ However, the regularity of Danish planning on St. Croix was a direct descendant of the gridded urban plan and cardinal orientation of Spanish colonial cities specified in the Law of the Indies.²⁰ The cadastral survey—one that records property boundaries—was executed in fits and starts, and nearly all surveyors’ records, field notes, sketches, and early maps between 1735 and 1750 are lost.²¹ Before Beck published his map in 1754, one manuscript map records the progress on the survey by Lieutenant Johann Cronenberg and Johann Christopher Jæger von Jægersberg in the late 1740s. The map was sent to Denmark in 1750, and, for unknown reasons, was ultimately not reproduced or used administratively. Nevertheless, it reflects an island in the fluctuating process of settlement and allotment, with particular attention paid to land ownership, with color to distinguish use (sugar, cotton, provisions and pasture, and forest or brush).²²

Although island administrators worked relatively seamlessly between the slightly smaller Danish Ager and the English acre when parceling land on St. Croix, the Burgher Council issued a proposal in 1751 to adopt the new standardized land measurement for the purpose of taxation.²³ The Danish Ager emerged as a local unit abstracted from both natural boundaries and use value as a means of ordering taxation on an island in the midst of rapid population growth. It produced the island as a nearly squared grid, where each acre would correspond exactly to four or five surveyor’s chains.²⁴ In Danish, *Ager* relates to fields or arable land and did not necessarily denote a quantifiable unit of measure, and in Denmark land valuation was calculated in *tønder* (barrels) based on the amount of grain needed to sow a parcel.

19 Daniel Hopkins, “An Extraordinary Eighteenth-Century Map of the Danish Sugar-Plantation Island St. Croix,” *Imago Mundi* 41 (1989): 47; Irene Cheng, “The Racial Geometry of the Nation: Thomas Jefferson’s Grids and Octagons,” in Shirley Samuels, ed., *Racial Vision in the Nineteenth-Century United States* (New York: Lexington, 2019), 18–22.

20 Axiel I. Mundigo and Dora P. Crouch, “The City Planning Ordinances of the Laws of the Indies Revisited, Part I: Their Philosophy and Implications,” *Town Planning Review* 48, no. 3 (July 1977): 247–68.

21 Hopkins, “An Extraordinary Eighteenth-Century Map,” 47.

22 V-gK. 61, general missive to St. Croix, 24 July 1748, cited in Hopkins, “An Extraordinary Eighteenth-Century Map,” 48. He was tasked to produce a map “with geometric lines and bearings . . . as well as to lay out the situation of the land with harbours and bays . . . to describe the land in all its circumstances.”

23 “As our island for the most part is settled by English from neighboring islands, various customs are also introduced unnoticed, which in the English places are useful, and which do not accord with the constitution of St. Croix, which in time, if it is not prevented, will cause confusion. Among these are, that it is already customary to sell lands in acres. . . . And if it is already customary here to assess estates acre-wise, without there being a written law or placard how much an acre shall be, we would therefore humbly think that such an acre could be established to be 200 feet in a square, which makes 40,000 feet Danish quadrate feet, and thus one of our plantations would contain exactly 150 acres, which about corresponds with an English acre . . . [and] should be a perpetual and unchangeable law for St. Croix, whereby we expect that all disputes over this that would otherwise arise between citizens in the future will be eliminated and prevented.” Vestindisk-og guineisk Kompanie Rigsarkiv, 114 Breve og documenter fra Vestindien, Borger Raad, St. Croix, 5 May 1751 (Copenhagen: Rigsarkivet), translated in Daniel Hopkins, “The Eighteenth-Century Invention of a Measure in the Caribbean: The Danish Acre of St. Croix,” *Journal of Historical Geography* 18, no. 2 (1992): 162.

24 Hopkins, “The Eighteenth-Century Invention of a Measure,” 164. Surveyor’s chains typically comprised one hundred links and were used to standardize cadastral land surveys. A 1740 company inventory lists a forty-foot chain, but there have been suggestions that a fifty-foot chain was also in use.

The illusory order of perfection and completeness in the form of the quadrilateral encompasses the 1754 map of St. Croix by Beck, whose status as a trained cartographer is uncertain despite his skill.²⁵ The grid assumed the island as a tabula rasa, a terra nullius only brought into meaningful relation through the superimposition of the rectangle, labeled with the plantation owners' name, divorced from any topographical or cultural landmarks, and oriented to ordinal linearity running "N.N.E. and S.S.E. across the island," according to the specifications of the original survey.²⁶ The visual conceit of the grid papers over the imprecise implementation of the Ager: the survey took twenty years, very few of the lots actually met the prescribed measurements, and a resurvey in 1743 revealed a 150-foot error in the width of Dronningens Quarter, located in the center of the island, that amounted to about a quarter of the land best suited to sugar production.²⁷ A map of the neighboring island of St. John by Peter Lotharius Oxholm—a Danish military officer, cartographer, and later governor general—indicates the challenges faced when parceling with the Ager. Because of St. John's mountainous terrain, it was impossible to replicate the nearly perfect grid seen in Beck's map, evidenced by the discrepant sizes of the island's administrative divisions indicated by the thick dashed lines overlaying the topography. Here the landscape refused the precise imposition of this colonizing environmental form, an ecological congruence with the enslaved Akwamu Africans who took control of much of the island from 23 November 1733, until French naval reinforcements arrived in May 1734.²⁸

In the case of St. Croix's flatter, more even landscape, the Ager thus severed cadastral spatialization from a quantifying system based on the landscape itself, producing the illusion of coloniality under the thumb of the abstract grid. Historian of geography Daniel Hopkins generously reads this exceptional historical manifestation of Enlightened order in the Caribbean: "The Danish acre of St. Croix thus appears to have been an innocuous cultural and intellectual exercise of a sort that may have been typical of the eighteenth century, especially in colonial or revolutionary circumstances."²⁹ Hopkins's conclusion conflates the implementation of the metric system in 1799 after the French Revolution with the purported neutrality of intellectual curiosity in the colonial Caribbean. His assessment also elides the racial inequality at the foundation of Thomas Jefferson's cartographic grid in the United States; a position revised by architectural historian Irene Cheng, who underscores that "the grid's promise of equality was never truly universal: the inhabitants of Jefferson's extended, squared-off territory were

25 Daniel Hopkins, "Jens Michelsens Beck's Map of a Danish West Indian Sugar-Plantation Island: Eighteenth-Century Colonial Cartography, Land Administration, Speculation, and Fraud," *Terrae Incognitae* 25, no. 1 (1993): 110. Beck was sent to the island in 1742 as a clerk in the company office. It is unclear if he was a trained cartographer, although his position as a clerk evidences his education, and his capacity as a draftsman was praised in an earlier colonial correspondence related to the survey.

26 V-gK. 100, Br. og dok., Friderich Moth, St. Thomas, 31 August 1735.

27 Hopkins, "The Eighteenth-Century Invention of a Measure," 165. Approximately 75,000 square feet per plantation.

28 Louise Sebro, "The 1733 Slave Revolt on the Island of St. John: Continuity and Change from Africa to the Americas," in M. Naum and J. M. Nordin, eds., *Scandinavian Colonialism and the Rise of Modernity* (New York: Springer, 2013), 261–74.

29 Hopkins, "The Eighteenth-Century Invention of a Measure," 165.

to be individual white farmers.”³⁰ However, the form of the Ager was anything but a detached intellectual project or merely a functional unit. These rectangular measures cloaked a plantation island driven by enslaved labor in archetypal Enlightenment garb where violent ecological extraction could be deracinated from colonial violence through geometrical abstraction.

Even beyond plantation lots, cartographic visualizations of spatial planning in the Danish West Indies betray the violence integral to the order they sought to reinforce in rectangular form. Upon first glance, the *Map over the Bay or Port of the City Christiansted on the Island of St. Croix* (fig. 2), produced two years after Beck’s map of the island, presents a flourishing colonial capital and port ripe for expansion. Where the primarily cadastral Cronenberg-Jægersberg map treats the Caribbean Sea as blank white space, the anonymous 1756 map takes a marine focus on Christiansted’s harbor. The sea is strategically mapped to indicate depth along with the *skibs-løbet* and *barke-løbet* (ship’s-run and barque-run) used to sail to and from the island. Although the map’s radial lines are not overlaid onto the representation of solid ground, their implied extension reinforces the orientation of Christiansted’s planned grid along a southeasterly axis.

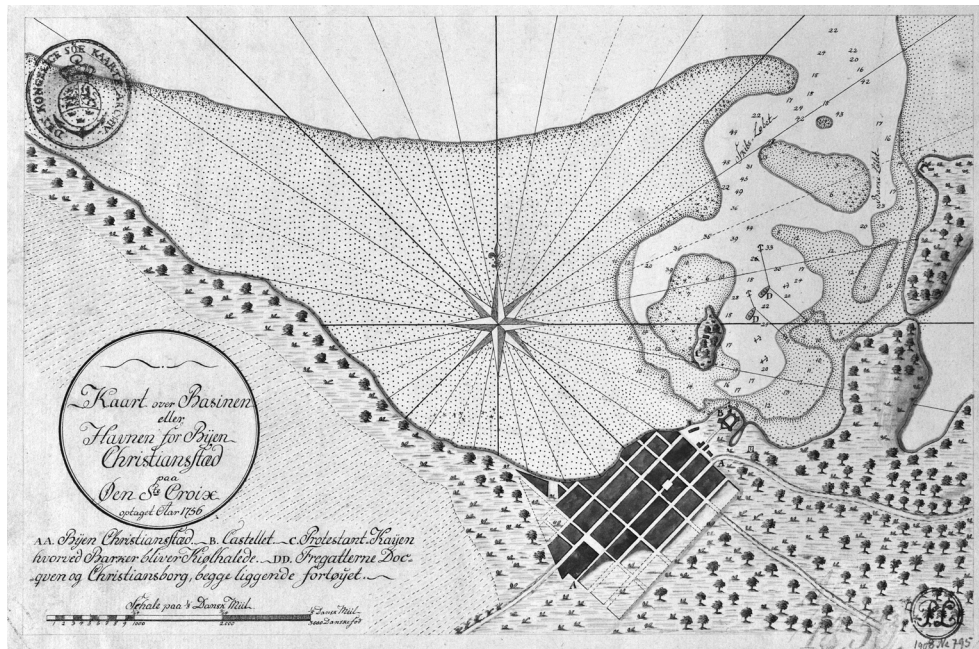


Figure 2. Anonymous, *Kaaert over Basinen eller Havnen for Byen Christianstæd paa Øen Ste Croix*, 1756; engraving, 32 × 21 cm., Det Kongelige Bibliotek

30 Cheng, “The Racial Geometry of the Nation,” 32.

Environmental form is not static or complete in the rendering of the capital; rather, planimetric order is conveyed through the gridded plan in the present continuous as a city that “is becoming.” The map invites speculation in both imaginative and economic senses as the deep maroon of city blocks gives way to partial gradient fills, blocks with partially solid boundaries and various degrees of negative (white) space, with some that exist only as dashed lines atop the landscape. This urban grid maps the promise of colonial order as one of immanent futurity in the Danish West Indies at a moment when the sugar industry and, consequently, the importation of enslaved Africans was augmented and codified. Although the dashed lines of plantation lots are largely excised from this view, St. Croix’s landscape is already represented as a *fait accompli*: Roads translate cardinal radiality into cadastral form and the uncultivated land beyond Christiansted’s limits is represented with generalized palms, trees, and pairs of leaves. Against the intense specificity that charts the bay’s “treacherous suboceanic topography,” as art historian Helene Birkeli describes it, the uncultivated tracts of land are presented as unproductive space waiting for urban and agricultural expansion.³¹ This uncultivated land remained unmeasured, unassigned to an owner, and thus not yet fully brought under the regularity of the squared plot and the grid. This presentation papers over the fear of what might go on at the margins of settlement on the island; these are the spaces of Black rumor, collusion, marronage, and knowledge exchange that threatened the foundations of colonial society. If this is placed within the context of the entire island’s geography, the representation of authority in these unmapped spaces belies the possibility of rebellion that perennially lurked underneath and within the colonial landscape. In other words, this representational technique diverts attention away from colonial spatial contestation and toward land as held in abeyance, waiting for ownership and proper use.

Yet colonial order is asserted in quadrilateral form even in this formless geography that occupies at least a quarter of the map. There is a minuscule square east of Christiansted, south of the fort, and nearly hidden behind a tree: gallows from which a limp Black body hangs (fig. 3).

The gallows are perspectively distorted so that they are seen frontally rather than aerially, like the generalized trees and brush that dot the landscape. In her attentive reading of the map, Birkeli also notes this instance of juridical violence but swiftly pivots from the appearance of the icon to a semiotic reading, arguing that “the recognizable symbol/icon of the gallows operates as a sign.”³² She conflates the representation of the gallows in the anonymous 1756 map with the combined visual and semantic signs for the gallows that appear in Beck’s 1754 map. The right angle of the capital letter *L* appears across the inlet from the star-shaped fortress in the upper left-hand inset that represents Christiansted. The *L* corresponds to the *Retterstædet* (place of jurisdiction) marked by the icon of the square-shaped gallows that contain an s-curved body. Birkeli contends that “the alphabetical order of the legend in Beck’s map

31 Helene E. Birkeli, “Tracing Territory: The Visual Culture of Danish(-Norwegian) Colonialism in the Caribbean” (PhD diss., University College London, 2021), 23.

32 Birkeli, “Tracing Territory,” 90.

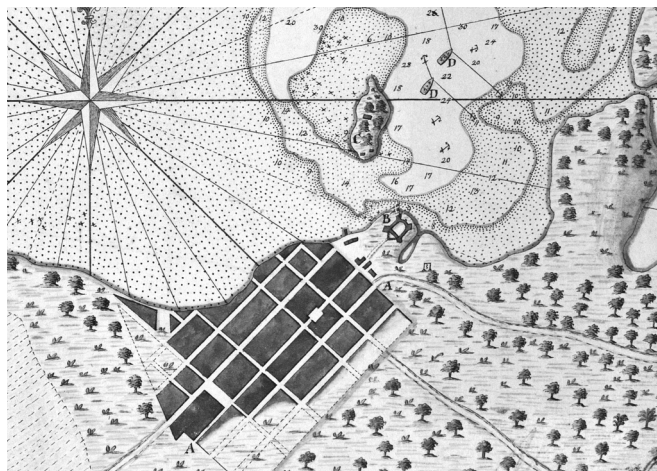


Figure 3. Detail of Anonymous, *Kart over Basinen eller Havnen for Byen Christianstæd paa Øen Ste Croix*

provides a narrative, a temporal arc, to Beck's landscape."³³ The alphabetical temporality of Beck's map presents colonial order as a linear progression predicated upon death if we shift her semiological reading into a formal one. The gallows' assert their presence in the 1756 map as a cartographic symbol of the necropolitical. Even when the symbol's meaning as a site of juridical execution is contextually diminished, the rectangular form of the gallows itself remains sufficient reassurance of colonial sovereignty by symbolizing the conjunction of race and enslavement as "*death worlds* . . . forms of social existence in which vast populations are subjected to living conditions that confer upon them the status of the *living dead*."³⁴ The implicit is made explicit in Beck's map with the alphabetical legend that orders colonial power on the island as a vertically hierarchical sequence in the legend unfolding from the fort (A) to Christiansted's central squares (B and C), to the Lutheran church (D), to the warehouses (E and F), from the execution place across the inset to the graveyard (L and M), until we finally reach the slave quarters (R and S), then move to the pictorial symbols for mills and roads (fig. 4).

In her engagement with another form of alphabetical sequence, Eugenie Brinkema draws from Roland Barthes to assert that the "large-scale form of the abecedarium would thus seem to promise . . . a pure site to play out the meaning or meaninglessness of order itself, a testing ground for the fecundity of the arbitrary."³⁵ The order of the alphabet may be arbitrary, but its sequence insists upon a linearity confirmed by the order of Beck's legend that structures a sequential relationship between juridical, literal, and racialized social death. From a Black geographic perspective, positioning the *Retterstædet* and *Kirkegaard* in the middle of an alphabetical legend that terminates with the enslaved quarters articulates Black space as bound to its moribund nonsubjectivity in slavery. The arbitrary imposition of the death-bound

33 Birkeli, "Tracing Territory," 91.

34 Achille Mbembe, *Necropolitics* (Durham: Duke University Press, 2019), 92.

35 Brinkema, *Life-Destroying Diagrams*, 91.

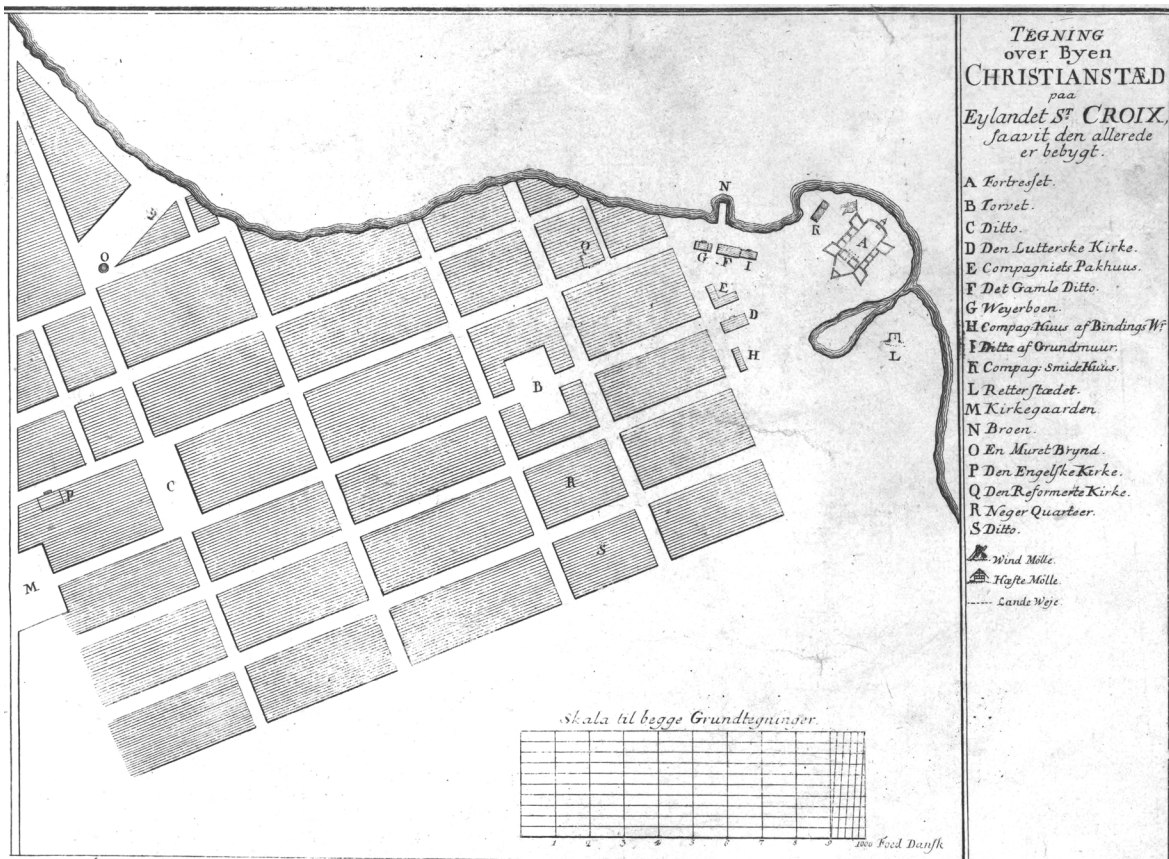


Figure 4. Detail of I. M. Beck, *Tilforladelig kort over Eylandet St. Croix udi America*

upon Blackness is only bolstered by the inclusion of the gallows symbol directly above its linguistic referent and immediately next to the legend itself because the symbol's form seems to resemble the letter *M*, thereby inverting the map's alphabetical order. For Birkeli, the imagined spatial proximity between the letter of the law and the icon of the gallows is a stylized intrusion of coloniality's being-for-death that "falls awkwardly in the map's authoritative scheme."³⁶ When approached formally, the awkward relationship between gallows symbol and the *L* signification of the Retterstædet produces an implicit legibility that death intrudes at any and all points along the way.

If the gallows are presented as an environmental form imposed on the landscape as a necropolitical symbol, then they more securely convey the death at the center of coloniality even when they nearly evade perception. The gallows in these two mid-eighteenth-century

³⁶ Birkeli, "Tracing Territory," 91.

maps extend Katherine McKittrick's analysis of the auction block as "as site of human geography intersections" that created "crude and excessive sites of black subjugation."³⁷ Where the auction block's interrelation with Black bodies marked them as fungible property, the gallows marked Black corporeality as a rebellious force that required literal, in addition to social, death in order to maintain colonial authority. Their inclusion in these maps speaks to broader attempts to consolidate colonial authority in the circum-Caribbean against slave insurrections by elevating the excessive and quotidian violence of the plantation to the level of juridical spectacle. Danish authorities would have been attentive to the threat of revolt after the 1733 St. John insurrection, and in many ways their fears were founded: in 1759 another enslaved rebellion erupted on St. Croix.³⁸

A formal strategy similar to the one employed in these two Danish maps from the 1750s was employed in a later aquatint where the gallows signaled the violent reestablishment of colonial order after 13,000 enslaved persons demanded their immediate emancipation in Demerara (now part of Guiana) on 18 August 1823. The largely nonviolent two-day protest was brutally suppressed by British authorities who had regained control of the colony from the Dutch in 1814. This was the penultimate print from mapmaker and engraver Joshua Bryant's firsthand account of the "insurrection" and represents "five culprits in chains as they appeared on the 20th of September 1823."³⁹ Each of the four rectangular vignettes is taken from a different plantation, and Bryant specifies where he encountered them: "1st, Quamina, on plantation Success. 2d, Lindor, on La Bonne Intention. 3d, Paul, on the Friendship, . . . 4th, Telemachus and Jemmy, on Bachelor's Adventure."⁴⁰ Each employs the gallows, either T-shaped with a central beam or M-shaped with a horizontal crossbeam supported at three points, as an environmental form securing order. Scale becomes an integral element mediating the relationship between the human body and colonial geography in Bryant's images. "The scale of the body," McKittrick argues in the context of the auction block, "necessarily identifies the ways in which the historical and geographic particularities of the plantation are socially produced through powerful material technologies."⁴¹ Although the views are presented at various distances, the executed corpse is, as art historian Meredith Gamer describes, "fixed in the landscape and left to the elements."⁴² These racialized corpses are weighed down at the horizon line or contained within the frame of the gallows—with the exception of the first small figure, who is held by the rippling vertical parallel with the beam and palm tree. The executed corpse and the gallows must be pictured together in order to render colonial control legible in the landscape. These four vignettes magnify the abstract symbols used to annotate the first

37 McKittrick, *Demonic Grounds*, 69.

38 Waldemar Westergaard, "Account of the Negro Rebellion on St. Croix, Danish West Indies, 1759," *Journal of Negro History* 11, no. 1 (1926): 50–61.

39 Joshua Bryant, *Account of the Insurrection of the Negro Slaves in the Colony of Demerara, which Broke Out on the 18th of August 1823* (Georgetown: A. Stevenson, 1824).

40 Bryant, *Account of the Insurrection*, 120.

41 McKittrick, *Demonic Grounds*, 74.

42 Meredith Gamer, "Britain, Empire, and Execution in the Long Eighteenth Century," *Journal* 18, no. 12 (Fall 2021), www.journal18.org/issue12/britain-empire-and-execution-in-the-long-eighteenth-century.

plate, a map of the plantations where the insurrection was localized, with small crosses used to indicate “where the rebels, or their heads, are exhibited, *in terrorem*.”⁴³ Representing bodies hung from the gallows presents a “seeable display of blackness,” laying bare the violence of the auction block that, in McKittrick’s argument, “creates the scale of the body and its attendant ideological discourses.”⁴⁴ Bryant’s visual interpretation folds the rectilinearity of the gallows into a grisly instance of picturesque landscape conventions, unsurprising given the fact that he had published a treatise on the topic in 1807.⁴⁵ Low horizons, expansive cloud dappled skies, *repoussoir* spatial ordering, and even the gruesome staffage of heads on pikes, mouths agape, all take their place to naturalize racial violence and formal order in the colonial environment.

The minuscule icons included in early maps of St. Croix pale in comparison to the gallows’ later gruesome rectangularity. However, these elements foreground and centralize a formal logic of colonial violence that more insidiously persists in the Danish maps. The inset of Christiansted in Beck’s more aesthetic map aligns the cadastral regularity of the Danish Ager with the sequential linearity of the legend. The singular place of the Retterstædet is doubled by the vertical alignment of the rectangular gallows icon and the indexical *L*. This redundant emphasis on juridical order in death aligns with Brinkema’s assertion that alphabetical order offers “not [an analytic] of finitude, but [an enunciation] of it; [it offers] not an interpretation of death, but an attestation of its unbreakable relation to sequence, to order, certain and predictable . . . being what, each time, ends—precisely as its form guaranteed, from the very beginning it would.”⁴⁶ The legend extends its ideological hierarchy of colonial power to the map as a whole, through both the form of alphabetical sequence and rectangular shape, for it is housed in its own discrete rectilinear frame, nested within another that delimits the inset. In the anonymous 1756 map, by contrast, the gallows stand without semantic referent. The gallows icon is oriented *true north*, setting it off from the southeasterly grid orientation of the town. Almost certain to be overlooked, this violent order in the form of the square pervades the landscape as a specious kernel of colonial *truth*. But the violent order of the square was not without challenge.

From these potentially marginal instances, heavily inked gallows are a central feature in a sketch from Jamaica by the Geneva-born antiquarian Pierre Eugène du Simitière. The order its form imposes on the environment is likely the result of du Simitière’s use of a straightedge, a tool common to mathematicians, cartographers, and draftsman alike that offers a technical and conceptual overlap between colonial systems employed to order the globe through the scalability of geometry. Where the scholars who worked to resolve the transcendental irrationality of the circle by squaring it in a finite number of lengths measurable with a straight-edge, du Simitière took up the tool to establish a different order of certainty by capturing the

43 Bryant, *Account of the Insurrection*, 116–17.

44 McKittrick, *Demonic Grounds*, 75.

45 Joshua Bryant, *Progressive Lessons in Landscape* (London: R Ackermann’s Repository of Arts, 1807).

46 Brinkema, *Life-Destroying Diagrams*, 100.

precision of the gallows' right angles accentuated by the hypotenuses of the support beams. The crossbar runs parallel to the faint horizontal lines that register wisps of clouds, and the rigidity of its verticality establishes a permanence lacking in the quick, imprecise lines that render the rest of the scene.

Produced sometime between 1757 and 1774, during his travels between Jamaica, Saint-Domingue, and North America, du Simitière's image captures a busy intersection in Kingston with two figures dangling from gallows that juts above the surrounding buildings. Du Simitière hastily sketched the scene and recorded the story behind the body: A soldier belonging to the "Mulatto Company" came upon a Black man in the woods during his evening rounds. The soldier hailed the man and, when the latter did not respond, killed him. The man was a "nègre nouveau"—or in contemporary parlance, an enslaved person recently arrived from the African continent—who was gathering wood to sell in town. His body was placed in a cage and hung from the gallows at an intersection. This body was left "for all to see," according to du Simitière; an act of what David Marriott calls "corpsing," after the theatrical term for when an actor blunders and puts themselves out of the role. For Marriott, corpsing becomes a potent metaphor for framing the social death of Blackness: "Since the slave cannot easily play the role of a legal person—even when legal personality ironically refers to itself as enslaved it maintains the illusion of itself as formerly free—it follows that as society establishes, recognizes, and assumes the racial rights of citizenship, the black subject must confront the discomfiting possibility that any performance of black social life is always corpsed by the fact that racial blackness is seen to be the performance of radical indebtedness or loss."⁴⁷ Precisely because of this prescribed corpsing role, the corpse played a role for Black life to matter without "depend[ence] on the idea that blacks can only perform and perfect the role of their deaths, and that they should do so forever."⁴⁸ After the caged corpse hung for two years, however, he was given the name "Fortune" by the free and enslaved Black population and was revered as a relic. Historian Jessica Marie Johnson points to the uncertainty of Fortune's identity—perhaps enslaved, perhaps Maroon—when compared to the mulatto militiaman. She argues that "Du Simitière captured a confrontation between two black male geographies. And geographies—ideas of them, maps in hands and heads, differential ways of viewing a landscape—portend intellectual histories told and telling."⁴⁹ The pair of Black geographies evoked by Johnson takes the viewer beyond the image, following the central road into the distance or on the surface with the scribbled redaction that rhymes with the seated figure in the lower left.

The gallows itself offers another formal doubling within the frame, however, that of Fortune's body. One Fortune is legibly enclosed within the rectangular grill formed by the cage. According to du Simitière's accompanying text, the other figure hanging to the right is simply another

47 David Marriott, "Corpsing; or, The Matter of Black Life," *Cultural Critique* 94 (Fall 2016): 36.

48 Marriott, "Corpsing," 63.

49 Jessica Marie Johnson, "Black Death: Gore, Geographies and the Gallows in Jamaica," *Black Perspectives* 12 (October 2015), www.aaihs.org/black-geographies-and-the-gallows-in-jamaica.

convict sentenced to death. Yet the indication of a rectangular grid also laid atop this figure implies an equivalence reinforced by the fact that both bodies hang at the same height. Fortune's status as a vernacular relic opens this doubling to present an alternative eking out of Black space within colonial constraints. Even the environmental form of racialized death and violence—in this case the quadrilateral—might also be “a site through which the conditions of captivity and sale can be contested, precisely because it is socially produced.”⁵⁰ There is a noticeable instability to this central feature of the composition, despite the fact that the gallows' geometric form and the symmetry of the bodies hanging from it should register as stable—an implied rectangle that runs from the gallows' crossbar to the peculiarly doubled groundline. The vertical line of Fortune's corpse continues in the turreted roof and building facade in the middle ground. When Fortune's death is doubled, the tense possibility for Black geographic relations within the metaphorical containment of the gallows' geometry becomes faintly legible. Beneath Fortune's duplicate is the expanse of a street that recedes to a vanishing point.

Du Simitière's double vision plays yet another spatial trick that would have been accomplished with the use of a straightedge. A second road on the right-hand side introduces a multipoint perspective, indicated by two faint vertical lines. They establish a counteraxis guiding the diagonal recessionary lines into an imperfect vanishing point that collides with a building. Perhaps this imperfect geometry implies a bend in the road, an alternative route, less blood-stained if not less death-bound, out of the picture plane.

One portion of I. M. Beck's map similarly speaks to the alternative Black geographies that could move within and around the colonial attempts to square St. Croix. In the North Side Quarter, a set of twelve plots depart from the rest. They are designated with dashed lines and are unnumbered, labeled as “uoptagne grunde [unrecorded or unoccupied grounds].” Despite the extensive deforestation required for plantation agriculture, these plots would have been particularly difficult to map because they were located on the hilly and still heavily forested west end of the island north of Fredriksted. Precisely because of this area's geographic inaccessibility and worthlessness to sugar planters, Maroons inhabited this portion of the island.⁵¹ When the Moravian missionary C. G. A. Oldendorp published an account of his time in the Danish West Indies between 1767 and 1778, he noted that this area—now known as Maroonberg or Maroon Ridge—was inhabited by Maroons who surrounded their settlement with dense vegetation and secured it with a fortification of poison-tipped wooden stakes.⁵² While the extent of occupation at Maroon Ridge is unknown, the mere existence of Maroon communities threatened the tenuous colonial order, and other accounts from the period

50 McKittrick, *Demonic Grounds*, 84.

51 Justin P. Dunnavant, Steven A. Wernke, and Lauren E. Khohut, “Countermapping Maroon Cartographies: GIS and Anticolonial Modeling in St. Croix,” *ACME* 22, no. 5 (2023), 1294–319. The authors of this article used GIS modeling to determine the suitability of terrain on St. Croix for Maroon settlement, showing that Maroon Ridge was by far the most suitable point on the island and that there was a marked constriction in suitable territory between 1750 and 1799.

52 C. G. A. Oldendorp, *History of the Mission of the Evangelical Brethren on the Caribbean Islands of St. Thomas, St. Croix, and St. John*, trans. Arnold R. Highfield and Vladimir Barac (Ann Arbor: Karoma, 1987), 233–34; Polly Pope, “A Maroon Settlement on St. Croix,” *Negro History Bulletin* 35, no. 7 (November 1972): 153–54.

mention regular “battues,” or Maroon hunts, that were unsuccessful in completely eradicating these communities’ refuge.⁵³ Because colonists knew the location of these settlements, it is peculiar that Beck avoided naming this contentious area. Anthropologists have postulated that surveyors avoided the area for fear of an attack, or that the omission was intentional, perhaps “not wanting to stir concern from investors and colonial officials in Copenhagen.”⁵⁴ If we begin from the formal tension between the square and the circle, however, a more foundational and pervasive technique of colonial domination might be glimpsed.

Other representations of Maroon settlements—of which Brazilian *quilombos* are some of the best documented—reveal that Maroons’ insistence upon Black space against the violence of slavery operated across scales, from the body, to the community, to the cultivated and wild landscape, and, critically here, to the forms employed in planning. While no representations or substantive archeological findings of Maroon Ridge settlements exist, a contemporaneous sketch of the São Gonçalo quilombo offers important insights into the forms Maroon settlements took.⁵⁵ The 1769 representation presents the settlement as a circular plan, a decisive break from the “Cartesian or chessboard” square grid of other quilombos, as geographer João Batista Alves de Souza notes, to both integrate the Maroons into their mountainous landscape and provide an efficient means of defense against colonial reconquest.⁵⁶ The map’s legend identifies deep trenches “ten palms high,” one proper radial egress “from which they fled,” and a trap exit for intruders lined “with stakes.” Although the comparatively small size of St. Croix may have prevented such extensive planning on Maroon Ridge, the São Gonçalo quilombo indicates a Black geographic contestation of coloniality that might have also developed on St. Croix. The formal circularity of Maroon settlements may have pressed from below against the Danish Ager’s violent cadastral extension into the “unrecorded” portion of the island’s Northside Quarter.

This nearly sublimated tension between colonial violence and Black contestations of it takes visible form in Beck’s map with the cartouche positioned in the lower right corner (fig. 5). The ideological dimensions of the cartouche and its capacity to articulate the power of ownership have long been recognized by scholars of cartography. In the context of eighteenth-century colonial and postindependence maps of what became the United States, G. N. G. Clarke asserts, “far from being decorative, the ‘pictorial’ figuration of a map was basic to the order it

53 Johan Lorentz Carstens, “Description of the Danish Islands,” in George F. Tyson and Arnold R. Highfield, eds., *The Kamina Folk: Slavery and Slave Life in the Danish West Indies* (St. Thomas: Virgin Islands Humanities Council, 1994), 1–18; Lomarsh Roopnarine, “Maroon Resistance and Settlement on Danish St. Croix,” *Journal of Third World Studies* 27, no. 2 (Fall 2010): 89–108.

54 Dunnavant, Wernke, and Khohut, “Countermapping Maroon Cartographies,” 1310.

55 Holly K. Norton and Christopher T. Espenshade, “The Challenge in Locating Marron Refuge Sites at Maroon Ridge, St. Croix,” *Journal of Caribbean Archaeology* 7 (2007): 1–17; Bo Ejstrud, “Maroons and Landscapes,” *Journal of Caribbean Archaeology* 8 (2008): 1–14.

56 Robert Nelson Anderson, “The Quilombo of Palmares: A New Overview of a Maroon State in Seventeenth-Century Brazil,” *Journal of Latin American Studies* 28, no. 3 (October 1996): 545–66; João Batista Alves de Souza, *As trajetórias e resistências das comunidades quilombolas do pantanal sul-mato-grossense* (Porto Alegre: Total, 2021), 121, acervo.bndigital.bn.br/sophia/index.asp?codigo_sophia=2982.

imaged: the land as seen.”⁵⁷ Clarke positions the cartouche as an aesthetic-political strategy to reinforce colonial expansion, slavery, and native expulsion in North American cartography. The cartouche facilitates the visual perception of the surveyed area (and implicitly its actual physical existence) as controlled. In the case of Beck’s map, I contend that the relationship between cartographic space and the cartouche compels the viewer to begin with the more abstract relationship between rectangular forms before turning to representation and symbolism as the foundational means of asserting environmental order.

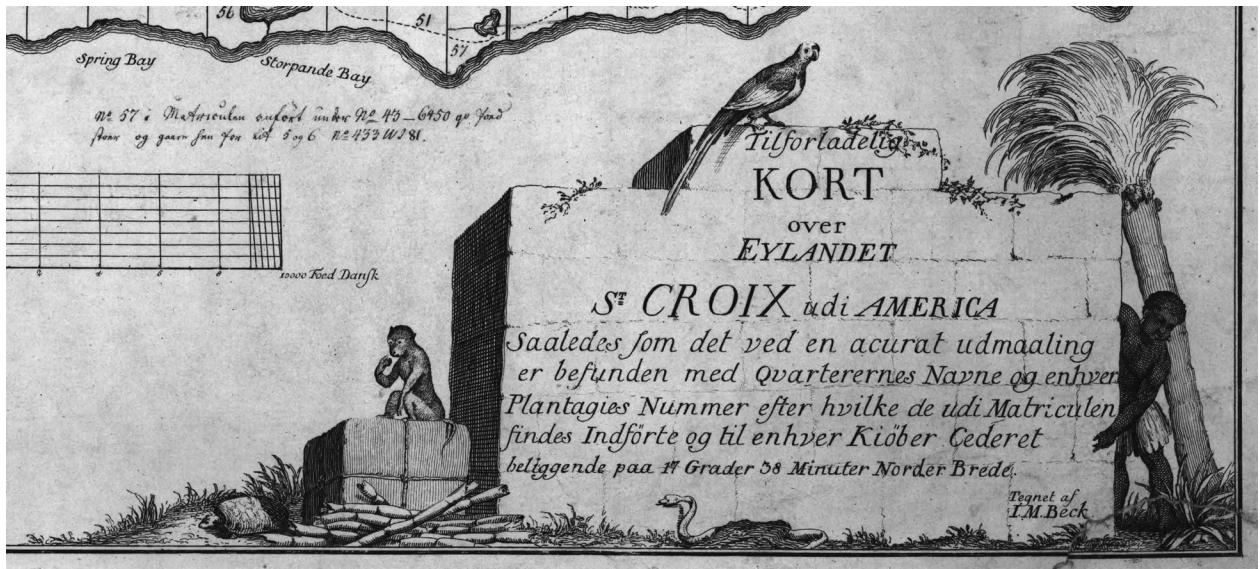


Figure 5. Detail of I. M. Beck, *Tilforladelig kort over Eylandet St. Croix udi America*

At the center of the scene is an architectural cube of vine-laden bricks upon which Beck attests to the accuracy of the map and the information it contains. The shape is meant to be perceived as volumetric when seen from this angle, indicated by the heavy cross-hatching on the cube’s left face. However, the imposition of text flattens the architectonic cuboid into a series of rectangles and awkwardly integrates it into the scene in relation to the palm tree and agave that anchor the space from the right and the “exotic” fauna that interact with it, despite the fact that neither snakes nor monkeys were indigenous to the island. The cuboid augurs the bodily and ecological violence undergirding the map’s colonial order. Consider the Black staffage figure of ambiguous gender who peeks out from behind the cuboid and acts

57 G. N. G. Clarke, “The Cartouche as Cultural Text in Eighteenth-Century American Maps,” *Word and Image: A Journal of Verbal and Visual Enquiry* 4, no. 2 (1988): 457.

as a modified Albertian *admoniteur*, also known as a “pointer,” who “informs the spectators of the things that unfold,” a prevalent trope in eighteenth-century cartouches.⁵⁸

The Black staffage figure’s race scales the cuboid to the level of the pore, because epidermal Blackness is formally constituted as a lattice of repeated parallelograms projected atop the figure’s contour, the product of cross-hatching used in copperplate engraving to shade volumetric objects. This is a formal instance of what Tiffany Lethabo King calls “black porosity” where “at the scale of the pore, black bodies are sensual, non-gender-specific, penetrable, sexual, fecund, and boundless.” The fungibility of Black bodies makes them porous and capable of merging with nature to “make new kinds of flesh” that “represent an alternative orientation and relation to objects, plants, and human and nonhuman elements in the world.”⁵⁹ In Beck’s map, the square is thereby made an infinitely scalable feature of colonial ecology capable of bringing both body and land under its thumb. The admoniteur counters squareness with the implicit arc of the body leaning out from behind the plinth to invite the viewer’s attention. The admoniteur’s pose holds a conventional narrative function meant to structure “a wider visual vocabulary which underpins the whole *look* of a map’s image,” as Clark characterized the allegorical dimensions of the eighteenth-century cartouche.⁶⁰ As this posture of obsequious reverence is narratively read, the figure suggests a counterpose that refuses the gesture as easily as it offers it. In a vein similar to the moribund refusal opened by du Simitière’s sketch, Beck’s map holds the possibility to be read otherwise. Death remains eminent but not yet meted out in the cartouche, the active roundness of the figure’s stance implies a linear temporal event: the admoniteur has arrived. Or, in a nonlinear converse, the pointer seems to arrive while also pulling away, in the midst of absconding from view. Their presence begins to circle the square, furtively moving within the rectangular impulse of the *Agre*, mutating it into a space of fugitivity.

But ultimately this is a work of colonial power. The arc is severed; the arm is severed. The violence of bondage is reinforced through environmental form. Compositionally counterbalancing the Black admoniteur is a bundle of cane and a cube of cotton visually quartered with rope. Through the intermediary of the admoniteur, these two agricultural products serve as a metonym for the perfectly rectangular plots, making environmental form legible in the map. As their self-same opposite—a commodity, but one that speaks—the Black figure conjoins the quartered cube to the agricultural plot.⁶¹ Blackness, in Beck’s map, becomes the means of uniting environmental domination as scaled forms from the pore (parallelogram), to the executed body (quadrilateral gallows), to the bundle of cotton (cube), to the plantations that composed the entire island (rectangle). And yet, the implied circularity of the staffage figure’s

58 Leon Battista Alberti, *On Painting: A New Translation and Critical Edition*, ed. Rocco Sinisgalli (New York: Cambridge University Press, 2011), 63; Jean-Marc Besse and Nicolas Verdier, “Cartouche,” *History of Cartography* 4, no. 1 (2020): 244–45.

59 Tiffany Lethabo King, *The Black Shoals: Offshore Formations of Black and Native Studies* (Durham: Duke University Press, 2019), 130.

60 Clarke, “The Cartouche as Cultural Text,” 469.

61 Moten, *In the Break*, 5–14.

stance evokes the forms of spatial contestation that lie in the “uoptagne grunde,” beneath the geometricizing violence of the colonizing grid that overlaid St. Croix. In colonial Saint-Domingue, the contestation between the environmental forms of circularity and squareness finds its way into the same frame across the abstract scale of mathematics into the material scales of urban planning and corporeal Black geography.

The Permissive Circle and the Systematized Square in Saint-Domingue

While my application of “squaring the circle” was largely metaphorical in the case of the Danish West Indies, I conclude with a second manifestation, in Saint-Domingue, during the same period that straddled its metaphorical and computational senses, transposing the contested coloniality of geometric circularity and rectilinearity onto the landscape itself. The creole polymath Médéric Louis Élie Moreau de Saint-Méry’s 1791 collection of engraved views of Saint-Domingue reiterates the grid’s obsessive coloniality, observed in the St. Croix maps. Nowhere is the ordering power of the square so clearly conveyed in this work than a half-page view of the small parish of Bombardopolis, located near the Golfe de la Gonâve on Haiti’s northern peninsula (fig. 6). The print takes an elevated vantage highlighting the planned grid of the small town that dominates the background. In his text, Saint-Méry describes Bombardopolis as taking “the form of a great square, that would have unequal long squares between them . . . divided by twenty streets cut at right angles, giving something of a regularity to its ensemble.” The engraving is a vision of colonization-as-square, an ordered form that is not only spatial but also atmospheric, where “the view expands [s’étend], the air circulates, the nights are quite refreshing, and in the so-called cold season, the morning dew, in its effect on the surface of the plants, resembles the white frost of France.”⁶² Saint-Méry’s comparison of Bombardopolis to Europe’s temperate climate plays on the oldest trick in the colonial playbook, equivalence, because the Caribbean was most often derided as a torrid zone insalubrious to European settlers. In Bombardopolis, imposing the square on the landscape could order even the unruly heat of the tropics.

Alongside the geographical imposition of the square in Saint-Méry’s engraving, its mathematical order vis-à-vis the circle’s quadrature was contested in Saint-Domingue as a veiled form of colonial discourse. During the summer of 1770, a flurry of exchanges in the *Affiches Américaines*, a newspaper published twice weekly in Port-au-Prince and Cap François, derided one Monsieur Jacques Mailler who had purportedly solved the problem of squaring the circle. The seriousness with which this debate was taken in the press reflects an important disjuncture between colonial and metropolitan French scientific discourses.

62 “A la forme d’un grand carré, qui aurait sur chacun de ses côtés des carrés longs inégaux entr’eux . . . devisés par vingt rues qui se coupent à angles droits, connotent quelque chose de régulier à son ensemble”; “la vue s’étend l’air circule, les nuits sont très-fraîches, et dans la saison qu’on appelle froide aussi, la rosée du matin a, dans son effet sur la surface des plantes, quelque chose qui rappelle les gelées blanches de la France”; Moreau de Saint-Méry, *Description topographique, physique, civile, politique de la partie française de l’île Saint-Domingue*, vol. 2 (n.p.: n.p., 1875), 48.

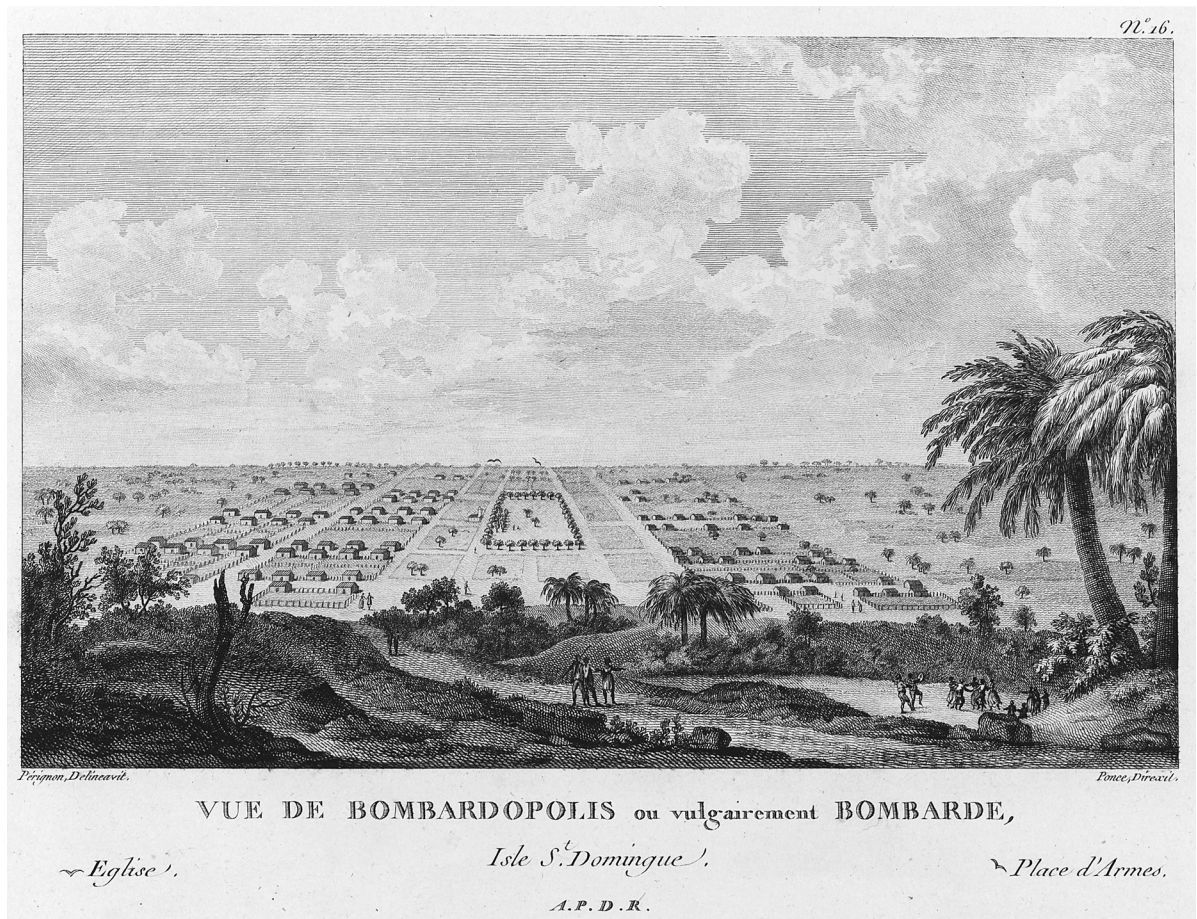


Figure 6. Ponce, *Vue de Bombardopolis, vulgairement Bombarde*, 1791; engraving, 49 × 34 cm., in Moreau de Saint-Méry, *Recueil de vues et des lieux principaux*.

In his 1751 “Editors’ Preliminary Address” for the first edition of Denis Diderot’s *Encyclopédie*, Jean le Ronde d’Alambert deployed the quadrature of a circle as both math and metaphor to deride the “dangerous” methodology of systems over deductive observation: “If we claim to prove the usefulness of Systems based on a very small number of past discoveries, we would likewise advise our Geometers to work out the squaring of the circle,” implying that the problem was akin to a totalizing system theory “better suited to flattering the imagination than clarifying reason.”⁶³ The appearance of the problem in other entries takes a similar tone:

63 “Si on prétend prouver l’utilité des Systèmes par un très-petit nombre de découvertes qu’ils ont occasionnées autrefois, on pourroit de même conseiller à nos Géomètres de s’appliquer à la quadrature du cercle”; “plus propre à flatter l’imagination qu’à éclairer la raison”; Jean le Ronde d’Alambert, “Discours préliminaire des éditeurs,” in Denis Diderot, ed., *Encyclopédie* (Paris: Breton, Cavid, Briasson, 1751), xxxi.

"All those who look for the quadrature of a circle have made paralogsms"; and "One of their principle pretensions is the belief that the problem of squaring the circle is quite important for longitude, in which they grossly deceive themselves; these two problems have no relation."⁶⁴ This colonial interest was perhaps also bolstered by the work of French mathematician Jean-Étienne Montucla who, in 1754, published a treatise that meticulously recounts the history of the problem and emphasizes its abstract rather than practical value.⁶⁵ In his treatise Montucla asserts that one must "disabuse" those who believe that solving the problem will result in a practical application in the world. Like d'Alembert, the longitude problem was his primary target: "It is ridiculous to suppose that longitude depends on it. The relationship of circumference to diameter does not enter into any navigational problem, and if one supposes it does, as if it is a problem of pure practice, it would be more than sufficiently resolved by one of the simplest approximations of the circle."⁶⁶ Montucla presaged the sharp delineation of theoretical and practical geometry present in the colonial debates as a means of valorizing the ordering power of abstract form.

In Saint-Domingue, debate surrounding squaring the circle drew connection to the desire for systems as a form of abstraction that would produce total control. On 12 July 1770, the editor of *Affiches Américaines* bemoaned, "So often one hurries to announce futile or chimerical discoveries in the public papers; the weary reader is almost always disposed in advance to doubt that these could be useful and well established. So many solutions to the Longitude problem, recognized as insufficient in practice, so many new solutions to the quadrature of the Circle."⁶⁷ A week and a half later, exasperation resurfaced as a logical refutation determined the equation was impossible. The editor of *Affiches Américaines* reports that "the circle and the right angle are the elements of all geometric figures, and they cannot be confused, cannot be compared, or be understood one in the other because the elements [are] of different nature[s]; it is the definition of the circle that renders quadrature impossible."⁶⁸ Despite their complementary participation in the system of geometry, the circle and the square were of incompatible natures, rendering them distinct and incomprehensible together. Although some

64 "Tous ceux qui ont cherché la quadrature du cercle ont fait des *paralogismes*"; "Une de leurs principales prétentions est de croire que le problème de la *quadrature du cercle* est fort important pour les longitudes; en quoi ils se trompent grossièrement, ces deux problèmes n'ayant aucun rapport"; "Paralogisme," in Diderot, *Encyclopédie*, 11:912; and "Quadrature du Cercle," in Diderot, *Encyclopédie*, 13:639–40.

65 Pi is determined by calculating the area of a polygon with sides that approach infinity, that is to say, a polygon that approximates the area of a circle.

66 "Il est ridicule de prétendre que les longitudes en dépendent. La raison de la circonférence au diamètre n'entre pour rien dans aucun problème de navigation; et si quelqu'un la supposoit, comme c'est un problème de pur pratique, il seroit plus que suffisamment résolu par quelqu'une des plus simples approximations du cercle"; Jean-Étienne Montucla, *Histoire des recherches sur la quadrature du cercle* (Paris: Chez Ch. Ant. Jombert, 1754), 13.

67 "On s'empresse si souvent d'annoncer dans les Papiers publiés des découvertes futiles et chimériques, que le Lecteur fatigué est presque toujours disposé d'avance à ne pas ajouter foi à celles qui pourroient être utiles et bien établies. Tant de solutions du problème des Longitudes, reconnues insuffisantes par la pratique, tant de nouvelles solutions de la quadrature du Cercle"; *Affiches Américaines*, 12 July 1770, 305.

68 "Le cercle et la ligne droite étant les élémens de toutes les figures géométriques, et les élémens étant de nature différente, ils ne peuvent être confondus, ils ne peuvent être comparés, ni être compris l'un dans l'autre; que c'est la définition du cercle qui rend la quadrature impossible"; *Affiches Américaines*, 26 July 1770, 321.

of its claims are incorrect, the presentation of geometric form is telling in relation to Moreau de Saint-Méry's emphasis on the squareness of Bombardopolis.

What circumvents the containment and fixity of the square can be read within the frame of Saint-Méry's representation of Bombardopolis from the perspective of Blackness. As King notes, the production of "Blackness and Indigeneity as states of geographic, cartographic, and ontological otherness that could be dominated and relegated" was never complete.⁶⁹ From the grid of Bombardopolis that recedes into the background (fig. 7), I turn our attention to the foreground repoussoir: a view from the Marie-Louise plantation in the east leads the spectator into the scene by way of a path populated by groups of Black staffage figures moving on an east-west diagonal toward the background.

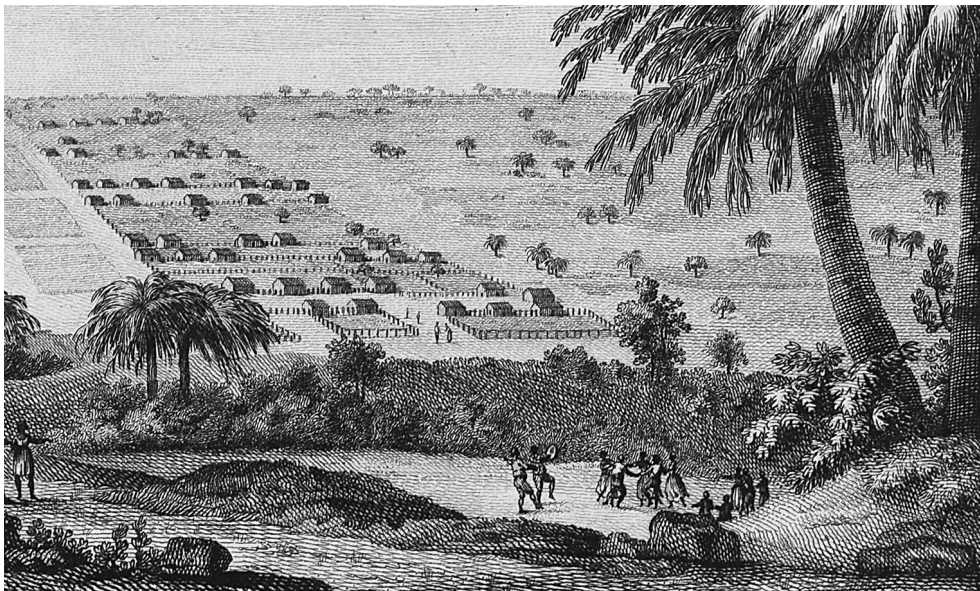


Figure 7. Detail of Ponce, *Vue de Bombardopolis, vulgairement Bombarde*

Although supplementary, the image's picturesque conventions are nevertheless disrupted and subtly challenged through the circular form that animates the right-hand corner of the foreground scene. Here five Black figures, enslaved or of low social standing, engage in a ring dance, a shape reinforced by the tambourine held by a figure to the left. The West African origins of these dances, often prohibited by enslavers and surreptitiously practiced by the enslaved, were well known in the eighteenth century and had variations throughout the circum-Caribbean. Moreover, these dances were often blended with European dances both because planters coerced the enslaved to perform and to disguise the Africanness of

69 King, *The Black Shoals*, 76.

the performance. The form of creolized dance, then, produces not only aesthetic syncretism between the differing Indigenous, African, and European worldviews that collided in the New World. These dances also engender alternative forms of embodied knowledge produced in the circuitry of relation and against the angularity of colonialism's ordering systems. In a later article on the subject, Saint-Méry applied the hierarchy of race to evaluate the form of dance, describing African diasporic dance in the round as "evidently primitive" and imposing the labels of frenzied, drunken, voluptuous, and obscene to movements where "each person is linked in a circle, each person sees all the others, and the chain formed by the arms becomes the regulator of the dancers' movements."⁷⁰ Saint-Méry's text equivocates on the circle's kinetic form, because he also describes it as an integral part of both European tradition and the complex dances performed by the enslaved and free people of color.⁷¹

Attending to the discrepant scales of the background town and foreground staffage elucidates the tension between the square and circle as environmental forms in Bombardopolis. In this grouping of Black dancers led by the beat of a tambourine and watched by an audience, the circle at bodily scale shapes a creolized relationality to the square against the fiction of infinite scalability in the context of the built environment. Here, the corporeal circle envelops the square against its ordering imposition. The absence of a middle ground facilitates the comparison of these two manifestations of shape in the landscape. In contradistinction to the angularity of Bombardopolis's urban grid that seems to infinitely extend into the horizon of the flat plane, the dance circle's scale depends on a relation to the less-ordered vegetation and figures who find themselves on the winding footpath in the foreground. Yet even the comprehensible regularity of the right angle failed in the case of Bombardopolis. In 1780, one M. Weuves complained of the "shady dealings [*commerce interlope*]" going on in the town. During peacetime, Bombardopolis was permitted to trade horses and wood for shipbuilding with the English in exchange for the less desirable sugar products of molasses and taffia, but traders in the region abused these loosened restrictions, Weuves reported.⁷² Just as the foreground staffage introduces other forms of relation in the dance circle, the reality of illicit commerce in Bombardopolis undermines the order of its gridded planning in Saint-Méry's print. The seeming totality of the square's disciplining authority was but an illusory aesthetic mechanism with material effects that sought to transcend scale and encompass the entirety of the colonized landscape.

The tension between circle and square, bodily and cartographic scales in Saint-Méry's aesthetic articulation of colonial order is further distilled in a contemporaneous painting attributed to Agostino Brunias. Brunias painted many of the English islands in the Caribbean in the 1760s and 1770s under the employ of Sir William Young, who served as the governor

70 "Chaque personne est liée en cercle, chaque personne voit toutes les autres, et la chaîne que forment tous les bras, devient le régulateur des mouvemens des danseurs"; Moreau de Saint-Méry, *De la danse* (Parma: Rodoni, 1803), 2, 41–42, 49, 52.

71 Moreau de Saint-Méry, *De la danse*, 38.

72 See M. Weuves, *Réflexions historiques et politiques sur le commerce de France avec ses colonies de l'Amérique* (Geneva: L. Cellot, 1780), 52–54.

of St. Vincent and Dominica and amassed a sugar fortune of his own with plantations on St. Vincent, Tobago, Antigua, and Dominica. He later reproduced many of his paintings as engravings that circulated throughout the Atlantic.⁷³ *Danse d'esclaves* (fig. 8) takes up dance to reproduce the illusion of colonial domination over the dynamism of the circle through the imposition of the square as a form of stasis. At the center of the composition, a light-skinned figure playing a djembe drum tilts his head back, perhaps in the midst of song. He is accompanied by a darker-skinned guitarist who croons to the two elegantly dressed women of color looking on as a male and female dancer flank the central grouping. The woman in a scarf-draped black hat holds a cashew fruit near her groin, an erotic visual metaphor that connects the scene of dance with the tropical environment through the foreground still life. Despite the



Figure 8. Attributed to Agostino Brunias, *Danse d'esclaves*, ca. 1770; oil on canvas, 45 × 51.8 cm. Musée d'Aquitaine à Bordeaux

73 Mia L. Bagneris, *Coloring the Caribbean: Race and the Art of Agostino Brunias* (Manchester: Manchester University Press, 2018); Kay Dian Kriz, *Slavery, Sugar, and the Culture of Refinement: Picturing the British West Indies, 1700–1840* (New Haven: Yale University Press, 2008), 37–71.

dynamism one would expect from this scene, a peculiar stasis prevails. The movement of the dancing woman's skirt, the posture of her male counterpart poised between steps, even the implied sound from the musicians cannot overcome this sense of frozen immobility. Looking to the formal tension between the circle and square in colonial Saint-Domingue traced through Saint-Méry offers one explanation. Individual rounded and angular forms abound in the composition. The djembe at the composition's center establishes a circularity that extends to the curved rise and fall of the dancing man's shoulders, and even to the roundness of the many hats that suggest an additional arc that can be traced around the figural grouping.

This curvilinearity implies a formal fluidity that would lend itself to depicting dance, as is the case in Brunias's *Dancing Scene in the Caribbean*, with a general arc to the figural grouping that accentuates the swishing movement of skirts and echoes the shape of the sloping hill in the background. The compositional structure of *Danse d'esclaves*, by comparison, stills the movement of the scene by counterbalancing curvilinearity with angularity. This contrast can be located in the onlooking woman whose checked skirt and apron contrast against the curve of the scarf that wraps around her shoulders and forms a cross on her breast, accentuating the ovoid arrangement of her arms. The gridded patterns of the dancing woman's madras headscarf and gingham skirt similarly render her movements rigid. Less diagrammatic angles formed by the drummer's legs counteract the djembe to stabilize the heart of the canvas, and one can trace a larger diamond from the top of the spectating figures diagonally to the dancers and finally to the basket of fruit, offering one formal justification for its pride of place. Finally, the loosely circular movement of the composition, an ephemeral orientation of bodies, is fixed by the painter in tension with the final rectangle of the picture plane itself. Compositional angularity, if not outright rectilinearity, counterbalances the circular fluidity of the represented dance. The painting's stiffness minimizes the sense of movement and schematizes the composition into a set of figural types that could be recognizable to the painter or spectator unfamiliar with the nuances of African diasporic dance.

The speculative evocation of a presumed spectator or spectators before the painting presses against the limits of reading form for its sublimation of colonial violence and Black persistence. The audience for eighteenth-century paintings like this one was most often the White planter class living in the Caribbean or families in Europe with personal or financial connections to the region. Often hung in the plantation house, these genre scenes produced an aestheticized vision of enslaved life from the safely mediated distance of painterly interpretation and thereby affirmed the power of the plantation owner. Under these conditions of spectatorship, the White patrons viewing *Danse d'esclaves* would affirm the angular schema that tempers the circular and curvilinear elements of the painting from their viewing position behind the foreground staffage. However, an account of the painting that incorporates the third dimension of an embodied spectator complicates the artist's compositional delimitation. Spectatorial presence completes a circularity implied when the composition is extended beyond the picture plane. The arrangement of figures reestablishes a loosely circular form

when the viewer is accounted for as another figure looking in on the scene. Although the fruit basket and foreground rock separate the illusionistic space of the canvas from the space of the viewer, they may just as well establish a different distinction between the dance of the Black and mixed-race figures depicted and the spectatorship of the White viewer. The active-passive distinction in this dynamic is critical in a culture where the enslaved were conscripted to perform creolized versions of European dances for the master's family and guests to perpetuate the fiction of "happy slaves" and justify the system's mildness.⁷⁴ Rather than square the circle, the planter's access to this scene reveals the possibility that he too was within the circle all along. The planter, however, would not have had exclusive visual access to the artworks hung in his home. Perhaps the painting also caught the eye of the enslaved men and women who labored as domestics in the plantation house. Or perhaps a free person of color saw it while doing business.

Although speculative, the possible reintroduction of various iterations of relational circularity—the planter, the enslaved, the free person of color—opens to reconfigurations of McKittrick's "black sense of place" that engenders "an ethical analytics of race based not on suffering," even when historicizing the excessive violence to which Black people were, and are, subject, "but on human life."⁷⁵ These other spectators might bridge the barrier between activity and passivity signaled by the foreground staffage and project themselves into a choreography they knew or imagine one they did not. When put into motion, the ring destabilizes the colonial imposition of the square onto the Caribbean environment and suggests other formal relationships between body and land. Frantz Fanon articulates this alternative Afro-Caribbean orientation to environmental form when he states, "The dance circle is a permissive circle. It protects and empowers. . . . Everything is permitted in the dance circle. The hillock, which has been climbed to get closer to the moon, the riverbank, which has been descended whenever the dance symbolizes ablution, washing, and purification, are sacred spaces."⁷⁶ Under the conditions of colonial plantation agriculture, the circle, when employed by the enslaved, was a dangerous shape of contestation on a human scale. In Saint-Domingue, the conspiratorial air of the permissive circle was a threat to colonial administration and plantation aristocracy; this is why François Makandal was burned at the stake in 1758 and why the Haitian Revolution has its mythic origins at Boi Caïman under the leadership of Dutty Boukman and Cécile Fatiman.⁷⁷ To be folded into the fantasy of geographic expansion and temporal prolongation—as the view of Bombardopolis and *Danse d'esclaves* make clear—the fugitive movement of the circle had to, but could never fully, be brought under the influence of the square.

74 Katrina D. Thompson, *Ring Shout, Wheel About: The Racial Politics of Music and Dance in North American Slavery* (Urbana-Champaign: University of Illinois Press, 2014), 69–98.

75 McKittrick, "On Plantations, Prisons, and a Black Sense of Place," 948.

76 Frantz Fanon, *Wretched of the Earth*, trans. Richard Philcox (New York: Grove, 2004), 19–20.

77 Laurent Dubois, *Avengers of the New World: The Story of the Haitian Revolution* (Cambridge: Harvard University Press, 2009); Thomas Madiou, *Histoire d'Haïti*, vol. 1 (Port-au-Prince: J. H. Courtois, 1847).

Transcendental Irrationality and Environmental Form

The aesthetic forms of the circle and the square provide important insight into the extent to which violence seeped across scales, and throughout plantation colonialism across the Caribbean. This essay has argued for the utility of reading for form as cyclically mediating historical discourses (across image and text) while also constituted by them. The formal method developed and employed across this essay traces the irreconcilability of these two shapes in mid-eighteenth-century mathematical discourses in the Atlantic world in order to extrapolate from it. With this method, the metaphorical rapport between circle and square elucidates the spatial, epistemological, and ontological pervasiveness of colonization's rationalizing violence as well as the constitution of Black geographies that existed within and beneath these geometric forms. Colonial imaging practices as diverse as maps, prints, and paintings could all signify a total control of the unruly tropical landscape and the enslaved Africans forced to work it through the imposition of geometrical abstraction. On St. Croix, the square and the rectangle served as a surrogate for the direct representation of anti-Black colonial violence and took shape across scales of colonial measurement. The sublimated violence of these maps was microscopied further still to the level of the enslaved Black body in its figural relation to the gallows' rectangularity, down to the technical level of cross-hatching that rendered Black porosity in a grid of parallelograms. Tracing the formal role of the quadrilateral in gallows imagery from the broader Caribbean during the long-eighteenth century reveals a scale of anti-Black violence that rent both body and landscape. The promise of the quadrilateral as a form of colonial control was also presented in the case of Saint-Domingue, with colonial mathematical debates and their relation to urban planning in Moreau de Saint-Méry's image of Bombardopolis.

Squaring the circle remained an impossibility in this eighteenth-century moment, however, and the transcendental irrationality of its solution might be another means of locating a Black sense of space in an otherwise hostile geography. If the diameter of a circle can only be calculated with pi (π), and pi is a transcendental irrational number (meaning it is not a finite integer and cannot be used in equations with finite sums), then the circle could only strive to be "squared" without pi's transcendental irrationality. Extending this mathematical metaphor to the objects at the center of this essay, if the rationally geometric quadrilateral was employed as an environmental form that promised to impose a totalizing order on the colonial landscape, then the circle would be an irrational counter to the square's colonizing violence.⁷⁸ These circles find their way into colonial imagery from the mid- to late-eighteenth century in ways that could be read as a challenge to coloniality from the perspective of Blackness that also traversed scales. The

78 Achille Mbembe, *Critique of Black Reason*, trans. Laurent Dubois (Durham: Duke University Press, 2017), 10–37. My opposition between reason and irrationality is not a direct one. When expanding the metaphor of "squaring the circle" into the context of the colonial Caribbean, my affiliation of circularity with Blackness and irrationality homes in on the negation of Enlightened "reason" from within its exploitative structures as it was becoming codified. This position is informed by the work of Achille Mbembe, where "'Black reason' turns our attention to technologies (law, regulations, rituals, [I would add forms]) that are deployed . . . with the goal of submitting animality to measurement"; Mbembe, *Critique of Black Reason*, 31.

possibility of circular Maroon settlements in the “uoptagne grunde” of Beck’s map is reflected in the arced posture of the admoniteur figure in the cartouche. Du Simitière’s corpsed figure opens onto alternative Black geographies through bodily and perspectival doublings. Angular regularity is disrupted by the “permissive circle” of Black dance, signaled in the foreground staffage of Saint-Méry’s Bombardopolis, and finds its contentious irresolution in the painting attributed to Brunias. However, any such schematization must also be tempered by slavery’s imposition of intrinsically uneven human hierarchies onto Blackness. When reading for circles and squares in the eighteenth-century Caribbean, these environmental forms instantiate sites of contestation buried under the brutal illusion of colonial control. And yet, they are also inklings of the Black geographies that endured across shape, body, and landscape.

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