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Race, the Jamaican Body, and Eugenics/Genomics:  
An Autobiographic Mediation

Caribbean bodies are among the most specularized of observed objects. From religion to sociology, and through a range of genres—travel writing, missionary reports, histories, colonial administrative accounts, diaries/journals and belles lettres—these bodies have been made into available and free sites, serving for archival evidentiary data collection, statistics, literary subjects and visual voyeurism. They have been objectified both through a “torrent of words and images,” as Stephen Greenblatt has described the phenomenon of hyper-textualization that enabled imperialistic projects to gain possession of and control over the New World (145), and a “visual colonialism” achieved through scoping, according to Johannes Fabian (123). Historically, this ‘gaze’ begins with fixing the New World indigenous Indian people as its object—the adventurer Christopher Columbus both described and brought back Indigenous people as specimen to Europe to display their difference from Europeans (Doggett 12)—but by the eighteenth century there is a marked shift to the black, African body. In contrast to the dual perspectives that had characterized the textualization of the Amerindian in which early colonial representations of aboriginal peoples were both “pragmatically political and romantically imaginative” (G. K. Lewis 32), that of the African was invariably constructed to justify his enslavement. Middle-colonial imaginings, then, with the exception of those created by the Abolitionists or liberals such as John Gabriel Stedman (*Narrative of a Five-Years Expedition Against the Revolted Negroes of Surinam, 1796*) were ideological productions that evolved into a potent archive of black stereotypes available for hegemonic discourses.

Colonial texts produced two views that would predominate throughout the following centuries, i.e., one of the black body’s ‘laziness,’ and one of moral laxity or ‘slackness’—particularly of the female. In Jamaica, the writing of Matthew [Monk] Gregory Lewis, the British writer and plantation owner, relies on the evolving stereotype of the lazy native:

For myself, it appears to be almost worth surrendering the luxuries and pleasures, of Great Britain: for the single pleasure of being surrounded with beings who are always laughing and singing, and who seem to perform their work with so much nonchalance, taking up their baskets as if it were perfectly optional ... sauntering along with their hands dangling; stopping to chat with every one they meet. (101)

In time, Thomas Carlyle in “The Nigger Question” would give a more egregious picture of this ‘lazy’ Caribbean native, while Anthony Trollope would devote eight of his twenty-one chapters of *The West Indies and the Spanish Main 1858/1860* to the same purpose. The surveillance of the female, in which it was important to declare her moral laxity, is sometimes different. Thus in one of the earliest descriptions, Mrs.

Carmichael writes in *Domestic Manners and Social Conditions of the White, Coloured, and Negro Population*:

The appearance of these women was disgusting; ... but without exception, the arms were drawn out of the sleeves, which with the body of the gown, hung down as useless appendages; while from the waist upwards, all was in a state of nudity .... We observed several coloured women at the door and windows of houses, the dresses of some of whom would have been elegant and graceful, had they been more modest. (10-11)

The immodesty of the black female becomes an overpoweringly invasive image that overshadows that of the Abolitionists and adventurers such as Stedman. For both genders, the underlying objectification of ‘skin color’ assumed paramount importance, and became the clearest and most frequent delineator of alterity and inferiority. By the beginning of the twentieth century it would be scientized as ‘race.’

In this article we examine a twentieth-century manifestation of the collusion of power and knowledge-formation—specifically ‘Science.’ Largely, scholars have been scrupulously attentive in examining the colonization of the black body during the mid-period of Caribbean colonialism, promoted by an early science of ethnography that relied on the writer’s observation and interpretation. By the 1850s, this ethnographic authority was augmented through the field of physical anthropology that would claim greater scientific authority, ensured by works of biology such as that of Charles Darwin. The young science accommodated ideological needs by declaring hierarchical structures of difference, especially as existent in the European colonial possessions with their unmatched degrees of *hybridity*—or intermixtures of peoples. The new science becomes an “aggressively racist movement” (Lorimer 12), solidified under the *science of eugenics*. The black body and its sexuality and reproductivity were placed under constant surveillance. While this dominant science of eugenics was the popular science of nineteenth-century England, by the early twentieth century it had lost much of its appeal and potency there. Conversely, it becomes a plausible science in the U.S., and institutions and scientists were well-financed by both government and private sources, given its promise as tool of social engineering and control.

Given the waning British interest in eugenics, it was surprising for us to discover that the Caribbean body was made freely available to this racialized science as pursued by an American scientist and occurring as late as the 1920s. *Race Crossing in Jamaica* (1929) is a scientific text resulting from an extensive study conducted by the American eugenicist Charles B. Davenport. It seems, however, to be entirely overlooked within the historical discussion of the colonial era, yet it, too, epitomizes Western imperialism; Jamaican bodies used as raw material in the furtherance of First World goals. With its late-imperialist vision, the 512-page tome comprises anthropometric, physiological, and psychological studies of “Blacks, Whites, and hybrids” (iv). Its author is a well-known U.S. biologist who held at the time of this study the position of director of the Biological Laboratory at Cold Spring Harbor in New York State. His field investigator was Morris Steggerda, a Ph.D. student in zoology at the University of Illinois. The island of Jamaica was chosen for having what were perceived as isolated pockets of “pure-blooded negro, mulatto and White” populations of similar economic class. The methods entailed anthropomorphic and psychological examinations that included some sixty measurements of body areas

including face breadth, cranial capacity and relative height in a variety of positions. The text has some 359 tables and charts, the result of a comparative analysis of three hundred and seventy “Blacks,” “Browns,” “Whites”: 197 males, 173 females. Mico College for Men and Shortwood College for Women supplied ninety-eight of these subjects; 118 came from the agricultural areas of Gordon Town and Seaford Town, and from a prison; 110 were classified as “city folk”, from Kingston’s fire and police departments, a crèche, and a prison; and forty-four Cayman Islanders were chosen who were supposedly white subjects.

The study collected data that appears in such chapters as “anthropometry” with measurements of all body parts including typologies—the nose’s breadth, depth, nose salient, nose bridge; arms, legs, calf, ankle, foot measurements—intended to serve to characterize racial origin. A second aspect of measurement came under the designation “physical observations,” followed by the third, “social data.” But by far the most importance would be placed on the fourth area, “psychological testing.” This latter included testing for musical capacity and cognitive abilities as determined by form discrimination, form substitution, copying geometric figures and drawing a man, criticism of absurd sentences, repetition of seven numbers, cutting figures out of folded paper, the Maniken Test, Knox ‘moron’ test, Knox cube imitation test, and Army Alpha test. Davenport would conclude that blacks and whites differ in both physical and mental capacities and that among the “Browns,” while some are equal to or superior to their progenitor races, “there appear to be an excessive per cent over random variation who seem unable to utilize their native endowment” (477).<sup>1</sup>

*Race Crossing* is an important text for several reasons. First, the text evidences the apex of techniques of observation and scientific inscription that began with the early anthropological methods textualized in travel diaries, accounts, accompanying drawings, etc.; continued through the emerging scientific authority of biologically informed science that also utilized photography as a supra-objective medium; and culminated in the minute dismembering gaze of anthropomorphic and physiognomic methodologies of the early twentieth century. Second, it constitutes a high-profile document in fuelling late-colonial fears of and anxieties about hybridity and intermarriage—colonial racism having its origins in the first contact with the aboriginal body, an angst which continues through middle colonization with the fear of the black body, and reaching its endpoint in fears of contamination. Lastly, as the text is written at the height of the U.S. eugenics movement, it has strong and unexpected resonances with current discourse in a ‘genomic era’ and in this sense even broader interest beyond the Caribbean. In fact, eugenics and human genomics compose the two phases of human genetics to date.

In an article in *The Scientific Monthly* (1928), concerned about racial intermixing, Davenport muses over the white civilized world’s fate:

The standard races of mankind are rapidly disintegrating... . Those who look to the future are naturally concerned with the question: What is to be the consequence of this racial intermingling? Especially we of the white race, proud of its achievement in the past, are eagerly questioning the consequences of mixing our blood with that of other races who have made less advancement in science and the arts. Is it possible to predict the consequences of such racial intermingling? (225)

Davenport concludes:

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<sup>1</sup> For a critical assessment of the research, see Vanouse, “A Race about Race.”

If only society had the force to eliminate the lower half of a hybrid population, then the remaining upper half of the hybrid population might be a clear advantage to the population as a whole, at least so far as physical and sensory accomplishments go. (238)

Could the students of Mico and Shortwood colleges, for example, have had any inkling that they were implicated in a foreign dream of purification and improvement that routinely recommended sterilization? It might have greatly surprised those who were the guinea-pigs of Davenport's project to see this 'final solution' offered as a way for Jamaicans to improve upon themselves, ridding themselves of their hybridity. The coercive power of science is no more tellingly revealed than in this case where Jamaica became the experimental site of one of the most infamous uses of science on a subaltern populace.

It became important to us to examine *Race Crossing in Jamaica*, for it raises several urgent considerations: 1) What were Davenport's scientific questions, and were the underlying assumptions conducive to good science? 2) How might ideological and cultural biases have impacted or been re-enforced in the scientific work? And 3) How is (imperial) scientific authority facilitated in the Third World, and how are bodies of alterity conscripted for a foreign purpose? Today, particularly given the globalizations and penetrations of hegemonic sciences—medicine and genome sciences, pharmaceuticals—the concerns are well worth exploring. Davenport's text raises questions both about previous use in Jamaica and the current trajectories implied by genomics: the issue of the tantalizing allure of scientific eugenics at the turn of the century, and the contemporary return of interest concerning human genetics.

Mulling over the proud announcement of genomic scientists, in summer 2000, that the Human Genome Project had the "rough draft" that would ground "a massive endeavor to map every single gene in the human body," we pondered whether racism would turn the science's gaze into the micro-world of genes, and re-assert itself at the molecular level, essentially re-territorializing racism rather than 'disappearing' it. The 'hybrid' subjects of Jamaican background, Hawthorne and Vanouse—mother and son—offered themselves as less unsuspecting subjects interrogating the 'truths' of Davenport's eugenics, and the authoritative science of genomics.

Genomics, like eugenics, is well served by concerned critique. We speculate, by means of an-other "spectacle" provided by Davenport's scientific work and incorporated into an artwork by Vanouse called "The Relative Velocity Inscription Device" (2002), how a different 'scientific' performance can serve as an interrogative and intentionally ironic jumping-off point. The resulting 'text' races segments of genes responsible for skin color in Vanouse's family members (i.e., his mother, father, and sister).

Our essay first examines the 'objectivity' of Davenport's science, followed by a discussion which attempts to conceptualize the tense space between, on the one side, the utopian and dystopic, and, on the other, genomics in the politics of race. In this article, then, we are first concerned with what seems to be problematic about this scientific work, and the implications for geopolitical spaces subordinate to powerful First World scientific regimes. We then explore the implications of both eugenics and genomics in the 'race about race.'

How, we wondered, does a foreign (scientific) enterprise present itself to the subaltern space? We endeavored to examine archives of both Davenport (at the Philadelphia Philosophical Society) and several Jamaican establishments (Mico College, the National Library, Spanish Town Archives), seeking in particular correspondence that would shed light on the planning of Davenport's study. For one, the attention given Davenport by Jamaican officials (cited in his "Introduction: History of this Investigation") seemed curious in light of what had to have been known about his interests. Considered the father of American eugenics, Davenport was also well-known for his controversial scientific beliefs. Recognized as the founder of the eugenics movement in America, Davenport had a major role in establishing the Carnegie Institution of Washington's Station for Experimental Evolution, serving as director for the Carnegie Institute of Washington 1904-21. He founded the Eugenics Record Office, serving as director 1910-21, and chose as first superintendent of that records office his cohort Harry Hamilton Laughlin, who would promote sterilization of inmates of institutions for the mentally disturbed, so-called feeble-minded, and delinquent. The subject of degeneracy, both as medical disorder and as behavior, was a main focus of Davenport's work, shown in texts such as *The Science of Human Improvement by Better Breeding* (1910); *The Hill Folk. Report on a Rural Community of Hereditary Defectives* (1912); *The Nam Family. A Study in Cacogenics* (1912); and *The Feebly Inhibited: (A) Nomadism of the Wandering Impulse with Special Reference to Heredity. Defects Found in Drafted Men* (1919). Laughlin and Davenport were also the main sources of arguments for restricted immigration policies intended to be exclusive. Was an awareness of the political and ideological stances of the scientist Davenport of any real concern?

The narrative of the introduction in *Race Crossing* exhibits an authoritative coherence. Davenport's remarks that "all official doors were thrown open to the research"—

Government officials, who had been informed of the coming of the party by the United States Department of State. The United States Consul, Mr. Jose de Olivarez ... Mr. D.H. Hall, Second Assistant Colonial Secretary ... Dr. B. M. Wilson, Superintending Medical Officer, and Mr. P. J. O'Leary Bradbury, Director of Education ... Mr. Frank Cundall, the distinguished student of Jamaica and head of the Jamaica Institute. (3)

Colonial authorities are represented as more than cooperative; they performed as scientific strategists in planning the cultural politics that were new to the Americans, advising solicitation of community participation by staging general talks "on science with special reference to mankind"; involving a leader of the community, especially the "minister of the leading church"; paying to each "a good photograph" (19). Davenport reinforced the impact of these managed or staged events with scientific euphemisms that served a seemingly disingenuous purpose, using circumlocutions such as that of his science "directly benefiting the cause of education and science" (19), though indeed not in the interests of the Jamaicans, as his essay in *Scientific Monthly* would clearly show. At Gordon Town, another of the Jamaican sites of his eugenic studies, Davenport was not forthcoming. With members of the Kingston Fire Department, Davenport found that while at first not many felt inclined to participate, "after the usual lecture," they were agreeable (17). Our 'interested' judgment is that much obfuscation and mystification accompanied this project; and might that be the case for other scientific studies in subaltern populations?

Davenport, then, tried to describe his study as “science in the interest of the natives” (Letter of 12 Feb. 1926). But subjectivity had immense impact on the presumed objectivity of the science. Correspondence with one of the colonial administrators—the British-appointed principal of Mico College, A. J. Newman—reveals a disquieting story. In a letter to Davenport on the eve of the project’s start, Newman writes of his discussions with Davenport’s main field investigator, Morris Steggerda:

He (Steggerda) has spoken to me at some length on the work he has in hand; and I have tried to get the American point of view. But I must acknowledge, that I have regretted much that he has not had the means of testing not only the emotions but also the strength of certain instincts. Dr. Lockett [a fellow Englishman living in Jamaica] maintains that the sexual organs of the negro are much more strongly developed. (12 Feb. 1926)

Newman thus raises with Davenport one of the most essentially racist questions of the time. While giving permission for his students’ bodies to be examined, Newman was not unaware of the greater potential for ‘eugenics’ study in the old racist garb. Another key interlocutor is the official Frank Cundall, Director of the Institute of Jamaica (now the Jamaica National Library) and much heralded in that period by U.S. scholars, botanists, and scientists in general as the man who knew everything there was to know about Jamaica. But he, like Newman, might also be the fox in charge of the henhouse; his views appear to have been that “The Negro race has at present gone but a short way on the path of civilization. The individuals are still as children, childlike in their belief and faith. Once gain their confidence and they will trust implicitly” (qtd. in Knight 312). These are examples of identify belief systems of colonial administrators that make them ready collaborators in ideologically tainted projects presented by First World scientific experts.

When Davenport recounts incidents of native resistance, he appears to have understood this only as evidences of cultural backwardness. Thus, for him, the natives of Gordon Town, Sugar Loaf, and Mt. Industry were suspicious and “at times a little superstitious concerning some of the technique, especially the taking of the hair sample” (11). Not surprisingly, more pliability was experienced with church folk; thus with the groups of Brownsville and Embona, Davenport writes that “[o]ne public lecture was given in the church, after which there was no difficulty in securing persons for study” (12).

But most problematic for us was Davenport’s ‘science’ of race; he was determined to see three races: the white, black, and brown. In a society where there are ‘rainbows’ of color within many families, the designations of ‘pure’ (pure black or pure white) are largely not ascertainable. If the Spanish colonies exhibited 128 mixtures—as obsessively recorded—how then could the outsiders Davenport and Steggerda decide on ‘uncontaminated’ subjects, i.e., ‘pure’ black or white? The study strayed from scientific methodology, relying on the insubstantiality of informers. ‘As the fellow says’ appears to have been the extent of the science, when principals of teachers colleges, for example, became those who determined the race of their students. Steggerda wrote to the principal of the girls’ school, Shortwood College:

Dear Miss Land:

Below are the names of the girls which been measured at Shortwood College. Will you, at your convenience, consider each one and record your comments concerning their heredity. I wish to know your opinion about their color. Some

perhaps are pure black, others are nearly so and still others are “colored.” You have worked with this type of girl for some time, and your opinion concerning their color will be valuable. In some cases you may know their parentage. (Letter of 23 March 1927)

As to collecting data on their ‘heredity’ and ‘parentage’—well, how to untangle the history of colonial desire, particularly with all the ‘outside children’ of ‘busha’? Such a complex genealogical story was expected within the seventy-minute sessions that included all physical measuring of subjects, as well as photographing. Linguistic incommensurabilities must also have been a preclusive factor. With the wide spectrum of patois dialects, Steggerda would have encountered language differences that would prove an obstacle; he mentions that he had a native ‘boy’ as his assistant.

## 2. Fictions of Eugenics

*Race Crossing* would come to be severely criticized for its interpretations of data:

The anthropometric measures of body dimensions, skin color, and hair type provided useful, reliable data, but the interpretations of mental capacities were framed in simplistic Mendelian concepts and gave far too little attention to the variability attributable to nutrition, health, and other cultural and environmental conditions. (Glass 16)

In Part 7 of his study, entitled “General Discussion,” Davenport gives his conclusions on the topics of variability, dominance, hybrid vigor, sexual dimorphism and its racial differences, and mutations. When he responds to his question—“Do the races differ in mental capacity”—some curious legerdemain seems to take place. For example, although his data suggested that “the Blacks seem to do better in simple mental arithmetic and with numerical series than the Whites. They also follow better complicated directions for doing things” (469), Davenport’s inference from this, however, serves to ensure a fiction of black inferiority:

It seems a plausible hypothesis ... that the more complicated a brain, the more numerous its “association fibers,” the less satisfactorily it performs the simple numerical problems which a calculating machine does so quickly and accurately. (469)

Davenport has often been criticized for his dogged force. One of his students, Herbert Spencer, said of him, “he is too strongly set in one way himself to attach enough importance to facts that go against his theory”; according to E. C. MacDowell, a fellow scientist, he “was also deeply lacking in self-confidence ... and was unable to accept criticism” (qtd. in Glass 15).

A critique of the ‘science’ of the work is not attempted here. However, our autobiographies ever in tension with this work, we locate a problematic in the way in which textual end-matter—a selection of photographs—expresses the ideological over-simplifications which Davenport’s scientific critics have argued. What are the semiotics of these addenda to the text? How do they interact with the body-text? What is the visual politics at play? Photographs, of course, form part of the scientific methodology in use since the mid-nineteenth century; anthropological, psychological and other scientific studies typically used them. In particular, the fields of phrenology

and physiognomy made signal use of imaging.<sup>2</sup> Especially in eugenics study, then, visual images are of prime evidentiary import, generally used to prove the scientists' contentions of "normality" or "abnormality." We wonder, however, whether the specularizing served to re-inscript biases of the scientists and the fictions of Davenport's science. The images do not always convey a strictly 'scientific objectivity,' and do not conceal Davenport's own subjective mindset. The images thus carry a supplementary value as persuasion. Can they be read as 'excess' that reveals Davenport's own anxieties about the persuasiveness of his scientific work? As Sander Gilman has contended, when

the sense of order and control undergoes stress, when doubt is cast on the self's ability to control the internalized world that it has created for itself, an anxiety appears which mirrors the earlier affective coloring of individuation. We project the anxiety onto the Other, externalizing our loss of control. (20)

For example, what explains the body-graphics in which only the black body is displayed in near nudity in *Race Crossing*? In other photographs, whites and browns are well covered, suitable and presentably dressed. The discrepancies between the groups are so noticeable that one feels obliged to ask, "Is Davenport's choice voyeuristic, meant to reinscribe the racist ideology of black hyper-sexuality?"

Fig 1: Set of four grouped photographs from *Race Crossing in Jamaica* (487).

In a four-set grouping of photographs [Fig 1], photographs show two Mico College males 'suitably' dressed as against two who are not. The 'respectably' dressed students exude restraint, seemingly the 'well-mannered' young men the culture so valued. The near nudity of the third figure, dressed in 'drawers' only, calls much attention to itself. Here, the Mico student seems to manifest a general disorder. The drawers seem unnaturally positioned on his body. They appear to be pulled down to the pelvis area on purpose, almost displaying his sexual parts. His discomfiture is

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<sup>2</sup> For more on this, see Sekuia on the uses of the body as archival source.



evidenced in downcast eyes, seemingly closed as if unwilling to reveal himself by looking at the viewer. Does the downward look express his humiliation? Asked to pose in public—the photographs are taken outdoors by the side of a Mico College building—was the captive guinea-pig uneasy with the use to which his body was put? And rather oddly, this page of photographs carry ‘racial’ codings of brown and black (identifiers “br” and “bl”), the only photographs to do so. The black bodies are singled out for exhibition.

Davenport seems obsessed with the possibility of the ‘nakedness’ of the ‘othered’ body. On another page in which four policemen are shown [Fig. 2 “Types of Men Measured at the Constabulary”], the same policeman is displayed twice, shown in uniform and without. Here again the sinister posing of the figure with drawers unnaturally hanging on the body is cause for speculation. Is the subliminal intent to metaphorically suggest the pathologization of the black body? To what degree does is an ideological predisposition reinscribed here? Thus we would implicate Davenport’s own ‘autobiography’—his subjectivity—as having impact on this ‘scientific,’ ‘objective’ photographic narration.

The photographic history of this scientific project shows a surprising degree of classist as well as racist bias. The conduct of the study required different degrees of unclothing of bodies for purposes of measurement-taking. According to Davenport’s introduction in *Race Crossing* (10-19), all the Mico College students “were measured in their underclothes”; men ages 18 to 25 were “measured and weighed without clothing.” The police subjects were “measured without clothes, in a quiet room,” while firemen “were measured in their underclothes, which consisted of a thin gymnasium shirt and track pants.” On the other hand, persons of high standing of one community “wore all their clothing while being measured, with the exception of their shoes.” Similarly, white subjects of Grand Cayman Islands “... were measured without shoes and outer wraps” and Kingston whites all “wore the usual tropical clothing which is estimated to be two to three pounds for each sex.” Perhaps also indicating Davenport’s partialities is the fact that he consistently identifies the lower-status subjects by number only, though the white and upper-class subjects are generally identified by their names.

Fig 2: “Types of Men Measured at the Constabulary”— showing the same man in, and out of, uniform. From *Race Crossing in Jamaica* (501).

In contrast to the female body, the male body seems more sexualized/voyeurized, which might indicate a patriarchal protectionism toward the female body in the highly church-controlled colonial society. Thus the female body of these photographs is strikingly marked by decorum and ‘properness.’ In general, the photographs are not voyeuristic—except for the inclusion of a “giantess” as the last picture used in the text.

Females constitute roughly half of the some sixty-odd photographs used. The paired young girls of [Fig. 3] are students at the same-sex girls’ school, Shortwood College. Of contrasting color, they both are well-dressed and confident-looking; they gaze forward at the camera, demurely poised, costumed in straight-laced blouses and skirts. Propriety seems to govern the way they present themselves, not least how they have dressed. Their attire suggests their roles and positions in the society. But a disciplining civility produces these bodies, the product of a Christian society and

institutions (both Mico and Shortwood are religiously affiliated colleges) whose values in the case of the women the invited scientists did not compromise.

Fig. 3. Two schoolgirls. From *Race Crossing in Jamaica* (488).

The photographs of peasant-class black women are complex to interpret. The images of two women, [Fig 4], show the female bodies costumed for the camera: their heads are wrapped in cloth, reminiscent of slavery customs such as the using of the “cotta.” They stand with one arm akimbo—i.e. placed on the waist—while the other arm is kept by the side. While they are perhaps manipulated in the sense that they are ‘costumed’ for the photographs, their stance—arms akimbo—is an authentic peasant-like posture, but one that also signifies defiance, anger, and even insubordination. A woman does not ordinarily use this pose when her picture is taken. Thus, as she stares at the camera, has she reversed the gaze, duplicitously using a gesture through which she “back talks” the ‘imperial eye’? Except for the resistance and self-empowerment which the latter photographs may show, the black female body seems very disciplined: accepting cultural ‘mores and manners’ shaped by the religious and educational institutions imposed by the colonizing power. Davenport, in visualizations of the female body, shows his partiality to class, though he otherwise seems obedient to the Christian values of the society, especially as these would have been pre-eminent at Mico and Shortwood colleges.

Fig. 4. Female bodies costumed for the camera. *Race Crossing in Jamaica* (489).

This scientific study of races and race-crossing in Jamaica sheds some light on what is an alarming instance of the hegemonic nature of scientific enterprise. Given power inequalities, and the subjectivity and partiality of a scientist, ‘fictions’ of science are easily promulgated. When measured in the context of its eugenic scientific agenda, the Jamaican circumstance shows the extent to which colluding colonial authorities can be used to manipulate an environment in service to an ironically “disciplining” science (in the sense that Foucault uses the term in *Discipline and Punish*). Inasmuch as Davenport would conclude, in *The Scientific Monthly*, that “corrections” should be made to that social world of hybridized people, the Jamaican body was unwittingly made an object of surveillance, and the ‘gaze’ was as every bit in evidence as it had been in the earlier periods of slavery and colonialism. Davenport would commiserate in that article that “The standard races of mankind are rapidly disintegrating .... [W]e of the white race, proud of its achievement in the past, are eagerly questioning the consequences of mixing our blood with other races” (225), concluding with regret that society did not seem to have the force to “eliminate the lower half of a hybrid population” (238). As Edward Said so compellingly argued throughout his career, “no discipline, no structure of knowledge, no institution or epistemology” stands free of coercive power (11).

### 3. From Surface to Depth

What have anthropometry and eugenics to do with genomics? What has the specularized Jamaican body to do with base-pairs? Eugenics and genomics are bookends in the history of human genetics. They are the most significant movements not only as the beginning and ending points of human genetics, but because there are no major developments that take place between eugenics and genomics. In 1883, Francis Galton, a cousin of Charles Darwin, coined the term “eugenics” (good in birth) as a science dedicated to improving human stock by getting rid of so-called undesirables and increasing the number of desirables.

Eugenics was the dominant movement in the field of human genetics from its inception in 1883 to its demise after the Second World War following its association with the atrocities of Nazism. After the war, sociology momentarily eclipsed biology as a method of understanding the causes of human difference, and environmental factors replaced hereditary factors as avenues of inquiry. In 1953, James Watson and Francis Crick published “The Structure of DNA,” their breakthrough paper describing the double-helix structure of DNA; substantial research into human genetics followed. In 1986, the Human Genome Project originated, largely from initiatives taken by Robert Sinsheimer and Charles DeLisi, with the goal of mapping the location of every single gene in human DNA. The project was inaugurated as a formal federal program in 1991.<sup>3</sup>

The Human Genome project (HGP) carefully sets itself apart from eugenics in several ways: First, it is purely a research endeavor aimed to gain a better understanding of what we as humans are, with no immediate social goals. Second, it addresses the location of genes across all humanity, not the differences between groups. The DNA of a diverse population of donors is said to compose the database. Third, ethical oversight is a major component of the project. James Watson lobbied intensely (and perhaps wisely, knowing the public’s possible negative reaction to the project) for three percent of Human Genome Project funding to further ethical debate.<sup>4</sup>

One of the stronger proclamations made at the completion of the rough draft of the genome catalog in the summer of 2000 contended that race is a social construction which has no biological basis. Although, in fact, this had been stated in 1950 by a team of UNESCO scientists, it is unclear how widely it was accepted by scientists at the time (cf. Hammonds). The research supporting the circa 2000 pronouncement finds that there is more genomic variance between individuals of one ‘race’ than between ‘races.’ Another comforting statement made by genomic spokespeople concerned the aims in collecting genome data that becomes useful for the diagnosis and potential re-engineering of genes responsible for genetic disease: genetic surgery would not be part of a broad mission to improve society. Rather surgery would only be used to allow individuals to make choices that would allow for a normal life. Evelyn Fox Keller reminds us that in 1969 Robert Sinsheimer felt that advances in molecular biology called for a “new eugenics”—one that, he states, “could, at least in principle be implemented on a quite individual basis” (Keller 289, Sinsheimer 8-13). Thus “individual”, “choice” and “normalcy” replace “society”, “control” and “improvement” as key words in the latest phase of human genetics (Keller 289).

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<sup>3</sup> For more details, see Kevles, “Out of Eugenics.” This article offers a concise history of human genetic research through the beginnings of the Human Genome Project.

<sup>4</sup> See Kevles 34-36.

How then might we understand this story of race and human genetics? Does the 'post-biological' age of genome science, like the Enlightenment, usher us from the dark ages of eugenics? Or is this current phase still technically eugenics, given that making one 'normal' from 'abnormal' would constitute an improvement, and given that genetic improvements would be passed on to subsequent human generations, and since "improvement of the human species" is the very definition of eugenics? While many contemporary critics have addressed concerns over issues of privacy, copyright, ownership, and access to treatment, the HGP's firm stance against racism has silenced many cultural critics of the politics of race. However, no sooner did many issue a great sigh of relief than HGP director James Watson opened a backdoor for scientific racism.<sup>5</sup>

Charles B. Davenport's *Race Crossing in Jamaica* project illustrates the most profound difference between eugenics and genomics, namely, that the scientific gaze has left the body and focused on its DNA. But is it possible that external traits previously linked to race might now become microscopic objects of distrust—like nano-agents of abnormality? In November of 2000, in a lecture at the University of California, Berkeley, Watson suggested that there are biochemical links between skin color and sex drive. Such a notion was common among early eugenicists but is disturbing to hear from the mouth of a Nobel laureate. Watson discussed an experiment at the University of Arizona where male patients were injected with a melanin extract. (Certain genes control the body's production of melanin, which is the substance that darkens our skin color.) The test was designed to see if the epidermis could be chemically darkened to prevent skin cancer, but found that as a side effect the men became sexually aroused. Various Berkeley scientists condemned the hypothesis on scientific grounds. For instance, Thomas Cline, professor of genetics, said the lecture had "crossed over the line from being provocative to being irresponsible because the senior scientist failed to separate fact from conjecture" (qtd. in Abate, n.p.).

What is most disturbing about Watson's statements is that now that the scientifically unpopular concept of race has been removed from skin color, a stigmatization and microanalysis of individual black-identified traits may follow. Indeed, perhaps it is not the black body that is deemed prone to promiscuity, but blackness itself. The very signifiers of race, rhetorically dislodged from their signifieds but still encoded within every cell in our bodies, could be personified as sexual deviants or misguided subversives awaiting the opportunity to express themselves against our will and irrespective of environment. The time-worn Christian distrust of the body may be complemented by a eugenic crusade against the microbodies in the nucleus of our cells. While the genomics movement has made a strong case for biological predilections in a handful of genetic diseases, Watson's suggested expansion of the scope of investigation carries strong racial eugenic overtones<sup>6</sup>.

Watson has a reputation as a controversial speaker. In 2003, the Nobel laureate told producers of a British television documentary series that low intelligence is an inherited disorder and that molecular biologists have a duty to devise gene therapies or screening tests to tackle stupidity. "If you are really stupid, I would call that a disease," stated Watson and noted that poverty probably isn't the cause of the performance of the "lower ten percent". Later in the interview, Watson suggested that genes influencing beauty could also be engineered: "People say it would be terrible if

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<sup>5</sup> See Vanouse, "A Race about Race," 2.

<sup>6</sup> See Vanouse, "A Race about Race," 3-4.

we made all girls pretty. I think it would be great” (qtd. in Bhattacharya, n.p.). Clearly Watson is invoking the language of strong biological determinism in the service of a classism, racism and sexism reminiscent of the eugenics movement, and in the fifty years since discovering the double-helix he has transformed himself from insightful to merely inciteful. Whether or not we can take Watson’s remarks at face value is an open question. The complete lack of intellectual subtlety in the remarks makes one wonder if he is being completely serious or whether his assertions are meant to provoke further social and scientific debate.

Whichever the case, it is ironic that Watson became the director of Cold Spring Harbor Laboratory in 1968 and in 1994 assumed the title of president—the same institution that Davenport had occupied as director of the Biological laboratory at the time of the *Race Crossing in Jamaica* study. The figures of Davenport and Watson serve as interesting examples of both the differences, but especially the similarities of eugenics and genomics in the history of human genetics.

Since 2003, various articles throughout the popular and scientific press have renewed the idea of distinct races. These discussions range from reexaminations of the basis of biological definitions to findings suggesting that the categories may be beneficial to targeting certain diseases, to conclusions that an entirely new paradigm of human difference may be looming. Major journals such as *Nature Genetics* and the *New England Journal of Medicine* have dedicated entire issues to this re-contested ground. While many of the contributors reassert that the sole basis for race is cultural and the remainder are much more tentative than Watson, race is again at the forefront of human genetics. In November 2004, clinical trials of the drug “BiDil,” a heart disease medication marketed for blacks, evidenced a clear trajectory for corporate research and development, as Greg Bloche has discussed.

In the last 125 years, the explicit goal of human genetics has shifted from improvement of the human race to that of the health of the individual. Essentialist notions of a pure, racialized subject have been disproved on scientific grounds. However, a return to any determinist (or, optimistically, semi-determinist) doctrine such as human genetics—be it biological or micro-biological—will be plagued by reductive interpretations. As patterns of DNA code replace external traits as objects of study, essentialist projects might become even more insidious. It is clear from Watson’s statements that racist notions can exist even when race does not. The embarrassing specter of eugenics has been dissociated in this exhaustive cataloguing phase of human genetics. (Our current distaste for eugenics comes primarily from its implementation and less from its fanciful, misguided categorizations.) However, if genomics reaches a clinical phase (such as genetic surgery or even pharmaceuticals prescribed by race) nuanced rhetorical maneuverings may be required to shake its definition or its specter.<sup>7</sup>

#### 4. Science as Live Spectacle

A 2002 artwork by Paul Vanouse called “The Relative Velocity Inscription Device” engages the slippery yet authoritative logic of racial studies to explore the relationship of contemporary genomics to eugenics. The work is designed as a live scientific

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<sup>7</sup> See Vanouse, “A Race about Race.”

experiment in the form of an interactive, multimedia installation. The work uses skin color genes from his 'bi-racial' (Jamaican and American) family members that literally compete with one another to determine the gene's fitness. The members of the family are: Mother, Dr. Evelyn Hawthorne; Father, Dr. Donald Vanouse; Sister, Melissa Vanouse; and Brother, Paul Vanouse. The goal is to build a race about 'race' in which the actual bodies of the participants had been 'erased,' thus begging the question "can racism exist even as the scientific gaze has left the body and gone molecular?" The multimedia installation is in fact a 'real' scientific experiment, in which the entire scientific process unfolds (live) in the space of public display.

Fig. 5. The Relative Velocity Inscription Device, Installation View, 2002.

Prior to installation, blood was drawn from each family member and their DNA was isolated. Then primers were developed to allow skin color genes from each family member to be isolated and their quantity amplified. In each race, these DNA fragments (one from each family member) were placed alongside one another in an electrophoresis gel (explained below) and raced against one another in a series of 23 contests.

Fig. 6. Inserting DNA: The Relative Velocity Inscription Device, 2002.

The experiment employs a process called "gel electrophoresis" that makes it possible to discern the different rates that fragments of the family member's DNA move/race through an electrically polarized gelatin. Gel electrophoresis is a scientific protocol generally used to compare DNA fragments—the familiar representation being the 'DNA fingerprint.' Gel electrophoresis involves first pouring a thin (agarose) gel of about 1 cm. Then this gel is placed flat in a container and voltage is applied across the length of the gel. DNA is placed in small holes at the negatively polarized end of the gel. The gel is composed of microscopic pores that allow the DNA to slowly diffuse toward the positive voltage at the far end of the gel. Thus, over a given amount of time, the DNA samples migrate toward the electrically positive pole of the gel at consistent speeds that depend upon their molecular size. The large-scale electrophoresis apparatus allows each contest to last for two to three full days.

The positions of the DNA samples in the gel are captured digitally (with a video camera), analyzed by a computer, and projected upon the rear wall, in order to ascertain the progress of the race at any time. Individual lanes with the family members' names (Mother, Father, Sister, and Brother) are superimposed atop the video feed. Every ten minutes, a new video image is captured by the computer and machine vision algorithms find the samples' current positions within it. To further underscore the metaphorical slippage between the DNA's movement through the gel and the individual family member's fitness, an animated icon of a running figure marks the position of each individual's DNA sample. The position of all samples at the conclusion of each race is stored in a database—completing the inscription of DNA performance into formalized data.

Fig. 7. Close-up of computer projection: *The Relative Velocity Inscription Device*.

On the workbench, framing the electrophoresis rig, are a book (to the left) and touch-screen monitor (to the right). The book is a first edition of Davenport's *Race Crossing in Jamaica*. Key pages of the book are tagged. These pages describe: 1) the experiment/methodology; 2) the individuals studied; 3) the procedures; 4) the results; and 5) the conclusions. The touch-screen monitor is a hypertext database containing the same categories of the current, RVID, experiment. The results are updated after each race and show the exact positions and relative velocities of each family member, in each race, at the time of its completion. The fully tabulated results from the first RVID experiments (23 races) at the Henry Art Gallery in Seattle, Washington were published under the title of "A Race about Race" in *Afterimage*, Sept./Oct. 2002. In these races, the Mother's DNA showed the highest relative velocity, followed closely by Father, Sister and Brother.

Vanouse is interested in forcing scientific media to 'speak' as if they were a cultural media. The RVID project, for instance, forces a cultural reading of DNA speed in the context of Davenport's *Race Crossing in Jamaica* text, causing an association between the performance of bodies and genes. The work interweaves varied puns to further the associations—such as the idea of a 'race' to determine the fitness of a 'race'; or the title "Relative Velocity Inscription Device" as a measuring of 'relative' velocities of the DNA of 'relatives.'

## Conclusion

Exploring the implications of eugenics and genomics in the 'race about race,' we have used several contrasting texts—a scientific work, its photographs, and installation art by Vanouse. Our discussion has attempted to call attention to the 'secure' authoritative summit from which science speaks, and to caution, through a presentation of Davenport's surreptitious eugenic studies, how fictions of race can be perpetuated. We discover that, even when not voyeuristically sexualized and specularized, the black body—such as the subaltern Jamaican body viewed in this essay— is ever at risk: of disciplining regimes of various determinations: aesthetic, religious, economic, touristic, and classist.

The Human Genome Project builds on a history of human genetics initiated by the eugenics movement in the late 1800s. While the stated aims of the Human Genome Project are in marked contrast to those of eugenics, the strongly determinist statements of Davenport and Watson have striking similarities. Furthermore, recent articles on the validity of racial categories and racial differentiation in pharmaceutical research, only briefly discussed in this article, highlight a continuation of racial differentiation at the molecular level. We find that the advent into genome sciences seems propitious, but is shadowed by its potential for abuse, as regards race, gender, and class.

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