Living Color

The Biological and Social Meaning of Skin Color

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Title page. A scene from Brazil's Carnival epitomizes "living color." Mauricio Lima/AFP/Getty Images.

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Skin Colors and Their Variable Meanings

Colors may be neutral, but our minds and culture give them meaning. Over time, color labels like *white, black,* and *brown* have become freighted with messages of social worth when applied to people. These meanings have varied according to place and time. Most of the concepts of race that people understand or identify with today are socially weighted skin-color labels. Races are described as socially constructed categories because they are composite categories of physical and cultural attributes, and because they have meaning only under highly specific conditions of time, space, and culture. As categories go, they are slippery and arbitrary; but they are no less real in people's minds for being so.

There is no universal preference for a specific skin color. Our preferences develop on the basis of our early experiences and what we learn about other people from our parents and teachers. Because people in prehistory and early history never moved far from home, they generally preferred their own color. Anything noticeably different was viewed with suspicion or fear. During and after the Age of Exploration, for instance, light-skinned Europeans were referred to as demons or ghosts in traditional African or Asian cultures. But two other important factors have come to influence cultural attitudes toward color in the past four hundred years, and both have created preferences for lighter skin. The first and older of these is the preference for paler skin based on its association with freedom from outdoor toil. This is a widespread and probably universal preference among agricultural people, one that arose independently in different societies. Paler skin was that with little or no evidence of tanning. The second preference is for light over dark—strictly speaking, white over black—that derives from Christian symbolism. The association of white with purity, virtue, and Christ, and of black with impurity, evil, and the devil, pervades the Christian liturgy and popular belief. Medieval and early Renaissance images of Christ often depict him with skin and garments of

pure white.

The light-dark polarity was extended to the human sphere with the increase in commercial contact between Europe and sub-Saharan Africa and the establishment of the slave trade and hereditary slavery in the Americas. As the transatlantic slave trade became more lucrative, the moral polarity of skin colors was accentuated to the extent that light and dark were respectively associated with human and animal, creating one of the longest-lasting and most pernicious patterns of bias that the world has ever known. A darkly pigmented African who attained social acceptance could be pardoned for having black skin only because, according to a commonly used expression, “his soul was white.”

In recent centuries, the two preferences for paleness have sometimes reinforced each other, as in the valorizing of the “English rose,” a woman whose almost transparent skin and blushing cheeks connoted both freedom from outdoor labor and incomparable virtue. The single most powerful factor reinforcing the preference for lightness in the last 150 years has been the dissemination of images in the popular media. When positive social messages and elevated social status are associated with images of people with lighter skin (as in much advertising), the effects are swift and sure.[1] Humans are ever imitative and suggestible and will work to transform themselves into a form or color associated with greater social acceptability and higher social status. Once established, attitudes toward skin color tend to be durable because they are reactions to known stereotypes and are faithfully transmitted by multiple cultural mechanisms.

It is against this backdrop that we can look at how skin color has come to be viewed in different parts of the modern world. Many places could be discussed here, but I have chosen the examples of South Africa, Brazil, India, and Japan to illustrate common themes and salient differences. Each of these countries has a long and complex social history and history of attitudes toward skin color.

SOUTH AFRICA

Southern Africa is home to a great diversity of human populations, many of which arrived in waves of migration overland and by sea over the past 5,000 years. The region’s original inhabitants are the San people, or Bushmen, foragers who have lived in the region for more than 30,000 years. The pastoralist Khoi people are closely related to the Bushmen genetically and arrived in southern Africa more than 4,000 years ago. The San and Khoi are often referred to as the Khoisan or Khoe-San. They have the moderately pigmented skin typical of people living under strong but seasonal sun. The Bantu-language-speaking group is a collective term for a

large number of agricultural peoples, originally from equatorial latitudes, who have darkly pigmented skin like that of other Africans living under intense UVR year-round. The archaeological record indicates that starting about 4,000 years ago, the areas originally inhabited by the Khoe-San were occupied by the Bantu-language speakers with their agriculture and metal tools. This transition was later described by European scholars as the ascendance of "Iron Age" agricultural peoples with strong "tribal" organization over the degenerate, "Stone Age," "Bush" races. Genetic studies of both groups attest to considerable admixture having occurred.[2] No written accounts exist from either group of their interactions or their impressions of one another's appearance.

The first light-skinned Europeans to settle in southern Africa were representatives of the Dutch East India Company, which established the Cape Colony on the Cape of Good Hope in 1652. The Dutch East India Company was the world's first multinational company. Its colony in South Africa began as a garrison to support the shipping trade between Europe and Asia, but within a few years, former employees of Dutch and French descent were allowed to settle there and farm. The Europeans mostly conquered and absorbed the Khoe-San as they created farms and expanded their settlement. They also imported slaves from Madagascar, from elsewhere in Africa, and from Indonesia and South Asia.

From the outset, the Dutch East India Company provided ministers of the Dutch Reformed Church to support the colony, and the church exercised a virtual monopoly over the expression of Christianity in the new colony.[3] Among the fundamental beliefs of the church were that the Bible was the sole authority over faith and life, and that individuals' lives and fates were predestined by God. Most church members embraced the "internal holiness" doctrine, which counted the entire European community as redeemed because they were born of believers and the non-European community—except for converts—as unredeemed. Colonial society in South Africa was built on the foundation of white European superiority, and it was unthinkable to the early colonists and their descendants that it could be otherwise. Some church members referred to the indigenous Khoe-San people as the cursed sons of Ham, and they were sometimes portrayed as being halfway between ape and human.[4]

The British took over the Cape Colony in 1795 and abolished the external slave trade in 1807. The colony grew quickly, and by 1820 it was composed of three distinct groups: the British; the descendants of the Dutch-speaking inhabitants (Afrikaners); and the descendants of the former slaves, together with the Khoe-San. The last was a highly heterogeneous group officially known as the Cape Coloureds. The

interactions between the British and Afrikaners were complex and strained, but they did not inhibit the movement of settlers, speculators, and prospectors of European ancestry into the hinterland. The British belonged to different Christian denominations than the Dutch and supported the elimination of slavery, but they did not champion integrationist ideals.[5] By 1870, most of South Africa was divided into four states dominated by whites. The Union of South Africa was formed from these four states after the British defeated the Afrikaners in the South African War of 1899–1902.

European domination over the darker races was justified because of the unshakeable belief that physical type was inextricably linked to morality, economy, aesthetics, and language. South African attitudes toward human diversity were shaped by the post-Enlightenment European notion that culture was an inherent expression of race, along with nineteenth-century beliefs that certain "stocks" had evolved biologically and culturally superior "fitness" and "adaptations."[6] The superiority of the white race was part of the natural order.

The doctrine of white superiority coincided conveniently with the growth of European-owned agriculture and the lucrative gold-and diamond-mining industries, and it helped to justify policies of population segregation and hierarchy. The introduction of migrant labor and the pass system, which regulated the movement of black Africans into white urban areas, ensured supplies of large numbers of exploitable workers and marked the first steps in establishment of a formal color bar. The Native Land Act of 1913 formally divided South Africa into "White" and "Black" areas, with the latter amounting to only 7 percent of the country's area. These "Black" reserves had limited agricultural potential and became "reservoirs of cheap, unskilled labor for white farmers and industrialists."[7] The resulting physical and economic isolation formed the cornerstone of apartheid.

During the early decades of twentieth century, increasing numbers of non-Europeans were educated at mission schools throughout South Africa and began to advocate for political reform. This movement—associated most strongly with the African National Congress—was temporarily vanquished with the election of the National Party in 1948 on a platform of apartheid. Over the next two decades the South African government enacted a series of laws designed to repress and segregate people of non-European descent.

The first step in enacting segregation was the institution of a rigid system of population classification whereby everyone was assigned to a race at birth. The Population Registration Act of 1950 codified the characteristics to be used to assign individuals to races, with sets of rights and privileges titrated by color. Four broad groups were defined:

Europeans (meaning white persons); Natives, Africans, or Bantus (meaning black persons); Coloureds (denoting those of mixed race); and Asiatics (embracing the "various races of Asia").[8] Legal authorities in South Africa recognized that in daily life, appearance, particularly skin color, furnished the principal criterion for group membership. But when decisions had legal consequences, other criteria were brought to bear, so that assessments were based not only on appearance (skin color, facial features, hair texture, and skeletal structure) but also on descent (the so-called test of blood), general acceptance and repute, and mode of living (including a person's associates, habits, dress, place and conditions of residence, and customary language).

Over time, legal authorities in South Africa came to rely more on the criterion of "general acceptance and repute" than on any other. This led to the development of absurd legal interpretations: "A person who is in appearance obviously a white person is presumed, for the purposes of the Act, to be a white person until the contrary is proved; but a person although obviously a white person in appearance, who is generally accepted as a coloured person, will not be regarded as a white person."[9] Because the general-acceptance and most of the other criteria were arbitrary and subjective, many individuals appealed their classification. The Population Registration Act included a provision for a Race Classification Review Board, and this and associated appeals boards met regularly from 1954 through 1991. Appeals were of practical importance because racial classifications directly affected a person's rights and mobility. Appeals were also essential in the bizarre and untenable situations in which children assigned to one race could not legally reside with parents classified as another.

Few details are known of what was actually measured or discussed by board members in their appeal decisions. Assessments appear to have been made mostly on the basis of skin color, hair texture, and clothing. In what came to be one of the strangest and most humiliating rituals of modern times, individuals were physically scrutinized and questioned for potential reclassification. Africans were reclassified as Coloured, and Coloureds were reclassified as Indians. Few people, understandably, appeared voluntarily for potential racial downgrading. People, including many children, assigned to the White race at birth were occasionally reclassified as Coloured if they were suspected of being Mixed by teachers or fellow students.[10] These situations often resulted in great psychological trauma because of the humiliation and rebuke associated with the subsequent mandatory relocation.

The abolition of the Race Classification Review Boards in 1991 ended

the era of official racial classification in South Africa, but it did not bring an end to differential treatment of people according to skin color. Traditions of speech, habitual associations of skin color and character, color-coded expectations of performance, and deeply entrenched patterns of physical segregation and residence developed over three hundred years have created durable inequalities that have proved resistant to change. A particular stigma is attached to Khoe-San ancestry. Despite the fact that genetic tests of the anti-apartheid activists and national leaders Nelson Mandela and Desmond Tutu have revealed that both have Khoe-San ancestors, other South African celebrities have declined to be tested. South Africans refer to the need to eliminate "apartheid of the mind" now that the formal institution of apartheid is gone.

BRAZIL

Brazil's history of colonial contact is broadly similar to that of the United States, but it differs in one crucial aspect. In the United States, beginning with the earliest European colonization, indigenous Native Americans were almost extirpated by disease, warfare, forcible slavery, and a program of resettlement that relegated them to reservations. In Brazil, the indigenous peoples also died in large numbers for similar reasons under British, Dutch, French, and Portuguese colonial rule, but a larger proportion of the indigenous population was assimilated by the dominant Portuguese. King Joseph I of Portugal at one point encouraged his subjects to "populate themselves" and "join the natives through marriage."[11]

They obeyed. By the middle of the sixteenth century, with the native population decimated, the Portuguese introduced African slaves into Brazil to meet the increasing demand for labor on sugarcane plantations. Upward of five million African slaves were brought to Brazil, where many suffered and died in brutal working conditions. Their fate was seen as payment for their "savagery and barbarous ways."[12] At the same time, faced with a dearth of Portuguese women, male colonizers sought out mates from indigenous and African slave populations and produced large numbers of children—often by rape—who varied greatly in physical appearance and skin color. Throughout Brazil's colonial history, interbreeding between Portuguese, Indians, and Africans was tolerated but not officially sanctioned by the government or the Catholic Church. The commercial benefits were substantial, however, because marriage ties resulted in enhanced trade networks with more communities.[13]

After the abolition of slavery in Brazil 1888, new scientific philosophies influenced official attitudes toward the country's extensively mixed population. Social Darwinists and eugenicists in Europe and the Americas

in the late nineteenth and early twentieth centuries viewed darkly pigmented peoples, especially African blacks and their descendants, as inferior and mulatto offspring as degenerate. For Brazil's rulers and scientific authorities, the large mulatto population therefore posed an enormous problem. Segregation by color, as practiced in the United States and South Africa, could not be established in Brazil because there was no agreement as to classification. Many members of the ruling elite were mulattoes who were not inclined to institute systems of segregation or color-coded treatment that would disadvantage them or their offspring. Tolerance of diversity was a practical necessity. A tacit skin-color hierarchy emerged nonetheless. The darker the skin, and the greater the proportion of assumed African ancestry, the lower a person's social position.

Beginning in 1872, Brazil addressed the perceived problem of mulatto degeneracy through the scientific solution of "whitening." Government policy encouraged large-scale European immigration and promotion of "constructive miscegenation."[14] The virtues of miscegenation were promoted as the foundation for racial harmony, unity, and "racial democracy." The absence of a legally sanctioned divide between black and white or between black, colored, and white led to the development of a finely graduated rainbow of names for skin colors. Color has always been considered more important than "race," a term that is synonymous with origin, in Brazil. The two cannot be disconnected, however, because color is derived from the admixture of the country's major founding populations, indigenous (Indian), European, and African. When the populace was asked to self-identify by skin color in 1976, they used 134 different terms.[15]

Descriptive names notwithstanding, discrimination by skin color was revealed by census statistics and social activists beginning in the late 1970s. Racial democracy was revealed as being a "bias that white is best and black is worst and therefore the nearer one is to white the better."[16] Advocates for the rights of dark-skinned populations have noted the tendency of most Brazilians to place themselves in a lighter color category on the census. The black-skinned, they argued, are in the lowest position on the color hierarchy: they have been disenfranchised and are the victims of continuing discrimination. In contrast to the situations in the United States and South Africa, the absence of a formal legal framework of color-based discrimination in Brazil has left advocates for the dark-skinned without an established structure to fight.[17] Nevertheless, movements to improve the social status and economic prospects of Afro-Brazilians have gained energy and adherents in recent decades. Brazil, like the United States and South Africa, is now wrestling with the challenges of

recognizing and reversing centuries of faithfully transmitted and collectively reinforced discrimination against the naturally dark-skinned.

Under such conditions, it is painfully ironic that recreational suntanning and cultivation of the deeply bronzed look is one of the most popular pastimes of Brazil's naturally light-and medium-toned people. Having the social flexibility to be "healthily dark," an appearance associated with leisure and privilege, is just as important in Brazil as it is in the United States and many European countries.

INDIA

Attitudes toward skin color in India reflect the complexities of the country's geography, its long history of population incursions, and its intricate social and religious history. The preference of agriculturalists for lighter skin, because of its association with freedom from outdoor toil, obtains in India as elsewhere, but it has been inscribed with more detailed and subtle shades of meaning. Attitudes toward skin color in India have developed over more than two thousand years and reflect considerations of class (*varna*) and caste (*jati*).[18] *Varna* described different spheres of human activity, from the sacred to the profane, and each was in turn associated with a different color (see chapter 8). Members of the *brāhmana* led religious lives: because they were forbidden to harm living creatures, they were discouraged from active agricultural pursuits. Thus rarely exposed to the sun, they became associated with the color white. Members of the martial *kṣatriya* class were, by contrast, exposed to the sun regularly during military training, and they came to be associated with a ruddy complexion and the color red. The mostly mercantile class of *vaiśya* had the special responsibility of keeping cattle. Spending time outdoors as herders, cultivators, and merchants, members were associated with the color yellow. The class of *śūdra* was subservient to the other three classes. Considered peripheral and dark by birth, members were associated with the color black. External influences over the past five hundred years have reinforced existing skin-color preferences in India. Christian associations of light skin with virtue and godliness, and of dark skin with evil and baseness, for example, were transported to India with British and Portuguese colonizers and strengthened long-standing associations based on *varna*.

The reality of skin color in India is complex. Social preferences for lightness exist within a country that spans thirty-five degrees of latitude and experiences varying but generally strong levels of sunshine. Skin pigmentation varies from generally dark in the south to moderate or light (but able to tan) in the northern states. It also tends to vary by class and

caste, with members of higher social groups being generally lighter in skin tone than those of lower groups. These two gradients cut across each other, however, to the extent that people of the lowest groups in the north are often lighter than those of the highest groups living in the south. In practical terms, this means that members of a particular social group in a particular place exhibit considerable heterogeneity of skin color but express a preference for light skin. This is most strongly expressed in the predilection for light-skinned brides. Families go to considerable lengths to seek out light-skinned brides for their sons, even if it means "marrying down" into a lower caste. The ideal bride is light-skinned and virginal; a dark girl is a liability to her family because of the difficulty of arranging a marriage for her. In a son, the deficiency of dark skin can be mitigated if he acquires other socially desirable qualities, like a good job or a good education. The culturally reinforced preference for light-skinned women in most of India is one of the best examples of sexual selection operating in humans today.

FIGURE 29. Models from the cover of the April 2010 issue of *Vogue India,* which heralded the emergence of a new era of color tolerance in India and a celebration of the country's "dusky" women. The same issue included two advertisements for skin-lightening agents. Photo courtesy of Prabuddha DasGupta.

Today, women from diverse backgrounds in India are better educated and enjoy greater social and physical mobility than in the past. Relatively dark-skinned women are gaining in popularity and social acceptability, at least judged by the barometer of popular magazines and movies. The cover

of *Vogue India* for April 2010 heralded "the Dawn of Dusk," and the accompanying story celebrated the "stunning earthiness" and "duskiness" of Indian women (figure 29). It referred to the "evolutionary process" whereby dark-skinned Indian women were being gradually accepted and labeled as beautiful. The unfolding of this process, which has been widely discussed on blogs, talk shows, and other popular media, will be fascinating to observe.

JAPAN

The Japanese preference for lightness and whiteness in skin tone can be traced to ancient symbolic associations of color, concepts of purity and pollution rooted in folk religion, and traditional ways of making distinctions between insiders and outsiders. Skin color in Japan has been a metaphor for a complex of attractive and objectionable social traits. Since the eighth century, the Japanese have considered themselves imbued with an esteemed "whiteness," which refers not only to skin complexions but also to spiritual purity.

As in other agricultural societies, untanned skin was a symbol of the privileged class that was spared from outdoor labor. Pale skin was also equated with personal beauty. Dark-skinned people were deprecated because they were of the laboring class that worked out in the sun. Heavily applied cosmetics could temporarily conceal dark skin but could not protect against the scorn meted out to the dark-complexioned.[19] Prior to contact with Europeans, the only words used to describe skin color were white (*shiroi*) and black (*kuroi*). Residents of the southern Japanese island of Okinawa were traditionally held in low regard, for instance, because their naturally light brown skin and good tanning abilities made them "black." After European contact, Japanese artists tended to depict the skin of Europeans in flesh tones or gray but depicted Japanese people—particularly women—with white skin.

This convention was retained in Japanese paintings and cartoons during World War II that depicted war scenes across Asia and the Pacific. Chinese, Southeast Asian, and Polynesian combatants were invariably depicted with dark skin, while the Japanese were illustrated with white or near-white skin.[20] This tactic visually reinforced the Japanese concept of the pure, white self but belied the fact that the Japanese soldiers would have been just as darkened by sun exposure as the others. The concept of spiritual whiteness was more important than the reality of the skin tone.

As in India, very pale skin in Japan was considered to be an essential characteristic of feminine beauty and could compensate for other physical shortcomings. For centuries, Japanese women have taken great care to

avoid sun exposure. Although some evidence of sun exposure on a woman's skin is now thought to be "healthy" and "athletic," near-white skin remains the feminine beauty ideal and a highly prized attribute of a potential wife. Whiteness in a man's skin is also considered beautiful but is less avidly sought in a mate because of its association with fragility and femininity. Japanese women favor men with light brown skin because they think of them as energetic, masculine, sincere, and self-assertive.[21] The strong favoring of white-skinned brides among the Japanese is very similar to that in India and presents another important example of sexual selection.

THE RECENT TREND TOWARD COLORISM

Attitudes toward skin color are similar, but not identical, in the United States and the four countries examined here. Bias based on skin color has developed most strongly in places where people originally physically distant from one another came into contact on an unequal social footing. In the United States and Brazil, darkly pigmented slaves were transported involuntarily to places dominated by lightly pigmented slave owners and slave traders. In South Africa, lightly pigmented people introduced themselves into a country inhabited by moderately and darkly pigmented people. In all three places to varying degrees, threat and force, sanctioned by biblically inspired notions of inherent supremacy, established light-skinned people in positions of power. Hierarchies of color were maintained by legal institutions and rhetorical traditions of superiority and inferiority. Over many generations, ideologies of color became rigid as they were collectively reinforced by stereotypes and multiple cultural traditions.

In India and Japan, skin-color based classifications and hierarchies of color favoring the light-skinned have developed from within. The hierarchies have been more casual, less rigid, and not legally mandated but no less potent as social forces influencing the fates of less-favored individuals and groups. Foreign (mostly Euro-American) preferences for light skin have reinforced those that already existed in these countries.

The increased pace of exchange of people, ideas, images, and advertising in the twenty-first century is creating a worldwide preference for lighter skin tones. As the systematic preference for the lighter-colored becomes universalized, the specific justifications for it are often no longer clearly remembered. We now live in a world in which colorism, the discriminatory treatment of individuals based on skin color, is a major social force and a challenge to human equality.

PLATE 1. The thirty-six Von Luschan color tiles for assessing the color of unexposed skin. The tiles provided the standards for recording skin color until the introduction of reflectometry in the mid-twentieth century. © 2011 President and Fellows of Harvard, Peabody Museum No. 2005.1.168.

PLATE 2. Alexa Wright, *Skin: Maxine*. Vitiligo is caused by cessation of melanin production in patches of skin. People affected by vitiligo sometimes suffer psychological discomfort because of their appearance, and support networks help affected people to cope. Reproduced courtesy of the artist.

PLATE 3. This Khoe-San woman and her baby from South Africa have moderately pigmented skin capable of tanning. Their skin is typical of people who have evolved in the middle latitudes under seasonally strong UVR. Photo courtesy of Edward S. Ross.

PLATE 4. The contrast in skin hue between men and women is emphasized in these highly stylized masks used in Japanese Noh theater. Photos courtesy of T. Inoue, Inoue Corporation, www.nohmask21.com.

PLATE 5. Muslim women in Afghanistan wearing traditional burqas cannot produce vitamin D in their skin even under the sunniest conditions. Black wool prevents nearly 99 percent of UVB from reaching the skin. Photo courtesy of Edward S. Ross.

PLATE 6. Wall of the tomb of Sebekhotep in Thebes (Eighteenth Dynasty, ca. 1400 BCE). Several men, probably Nubians, were depicted with black skin by Egyptian artists. Photo © The Trustees of the British Museum. All rights reserved.

PLATE 7. Jan Mostaert, *Portrait of an African Man* (ca. 1520–30). Many of the Africans who arrived in Europe in late medieval and early Renaissance times became scholars and advisers. Photo courtesy of the Rijksmuseum Amsterdam.

PLATE 8. Skin tones vary according to levels of UVR and are darker near the equator and lighter toward the poles. The gradient is more obvious in the Old World and less so in the New World, where people have lived for only about 10,000 to 15,000 years. Illustration © Mauricio Antón 2011.

PLATE 9. Mattel's Malibu Barbie was marketed to girls in the early 1970s, before the dangers of suntanning were fully appreciated. The glamor, sex appeal, and studied leisure associated with a tan and with tanned celebrities contribute to the continued popularity of the tanned look today. © 2011 Mattel, Inc. All rights reserved.

20. During the infamous case of *Rhinelander v. Rhinelander* of late 1925, Alice Rhinelander (née Jones) was forced to expose her torso and legs to the jury to allow them to assess the skin color of her body. Her husband, Leonard Rhinelander, had sued her for an annulment of their marriage on the grounds that she had fraudulently claimed that she was white. For details of the case, along with an excellent commentary, see Wacks 2000.

21. Eva Saks (2000) has written a brilliant exposé on miscegenation law, discussing several cases that hinged on the explication of "hidden" ancestry.

22. For an excellent summary of the minstrel tradition in the United States, see Pieterse 1992, 132–36.

12. SKIN COLORS AND THEIR VARIABLE MEANINGS

1. The promotion of tanned skin in Europe and the Americas since the 1930s has yielded a similar effect. As discussed in chapter 14, tans achieved through leisure activities or suntanning became associated with leisure and higher social status in the later twentieth century, and images of tanned celebrities connected tanning with the promise of social elevation and approbation. White people can become tan and still enjoy the social benefits of lightness.

2. Saul Dubow describes the history of European scientific attitudes toward the "racial differentiation" of the Khoe-san and Bantu-language speakers in chapter 3 of *Scientific Racism in Modern South Africa* (Dubow 1995). For details, see the genetic studies conducted by Sarah Tishkoff and colleagues (2007).

3. On the history and attitudes of the Dutch Reformed Church in South Africa, see Gerstner 1997.

4. The practice of describing the Khoe-san as descendants of the sons of Ham, or representing humans that retained characteristics of monkeys and apes, can be traced to eighteenth-century Europe. Some of these attitudes developed in the wake of the public display of the Khoe-san woman Saarje Baartman in England and France in the late 1700s. After her death, her body was dissected by the French zoologist George Cuvier, and her body parts were variously displayed and stored. Her remains were finally repatriated to South Africa in 2003. See Tobias 2002.

5. A full exposition of the diversity of European Christian beliefs in colonial South Africa is presented in Elbourne and Ross 1997. Catherine Besteman provides an excellent and up-to-date synopsis of the history of population interactions and discriminatory practices in South Africa in *Transforming Cape Town* (Besteman 2008).

6. On the effects of post-Enlightenment European philosophy and social Darwinism on the development of white supremacist ideology in South Africa, see Dubow 1995.

7. Leonard Thompson, quoted in Besteman 2008, 5.

8. For a thorough legal interpretation of race classifications and definitions in South Africa from 1910 to 1960, see Suzman 1960.

9. Quoted in ibid., 354.

10. The personal turmoil caused by repeated racial classifications is epitomized by the story of Sandra Laing, who was successively classified as White, Coloured, and again as White. Laing's story is described by Judith Stone in *When She Was White* (2007).

11. Quoted in Telles 2004, 25. Edward Telles's excellent study should be consulted by readers seeking more detailed information about Brazil's long and complex social history.

12. Quoted in Vieira 1995, 228.

13. Attitudes toward miscegenation in European colonies varied. For a good summary, see Samson 2005.

14. See Telles 2004. The central differences between United States and Brazilian concepts of color and race are illustrated by the census categories that the two countries have employed in the past two hundred years: see Nobles 2000.

15. For the list of 134 skin-color names catalogued by Brazilian authorities in 1976, see Soong 1999.

16. A. Dzidzienyo, quoted in Guimaraes 1995, 217.

17. The irony of color-based discrimination in what was a nominally colorblind "racial democracy" is discussed in Vieira 1995.
18. *Varna* and *jati* are often and erroneously referred to together as "caste." The reality of the two systems of classification is much more subtle and reflects the interplay of Vedic and Hindu philosophy in Indian history. See Basahm 1985. André Beteille's account of race and descent in India (1968) provides an excellent summary of modern attitudes toward skin color.
19. On the meaning of skin color in Japan and the association of whiteness with purity, see Wagatsuma 1967; Dower 2004.
20. See Dower 2004.
21. See Wagatsuma 1967.

13. ASPIRING TO LIGHTNESS

1. Spanish humanist text, quoted in Swiderski 2008, 166. Swiderski observes that mercury-based compounds were central to skin-lightening and cosmetics formulations for more than four hundred years. Mercury's toxicity was recognized early, but for many, this was outweighed by its beneficial effects on the appearance of the skin and its effectiveness as a cure for syphilis. The harmful effects of white-lead cosmetics on the children of Edo-period samurai are described in Nakashima et al. 2011.
2. See Dyer 1997.
3. James 2003, 19.
4. Constance McClaughlin Green, quoted in Moore 1999, 58. On the history of colorism among African Americans, see James 2003. For a succinct overview of the historical background to American colorism, see Neal and Wilson 1989.
5. Twain 1997, 28, 66.
6. Gatewood 2000, 349.
7. The importance of light skin in African-American culture is the focus of Marita Golden's memoir *Don't Play in the Sun* (2004). The list of African-American skin color terms appears on page 7. The subject of passing—generally involving famous individuals—and of people being unaware of their ancestry has been the subject of many recent biographies, scholarly studies, and novels. See, for instance, Broyard 2007; Byrd and Gates 2011.
8. Quoted in Peiss 1998, 205. Peiss's monograph *Hope in a Jar* is one of the most insightful recent works on the politics of appearance.
9. Quoted in Walker 2007, 77.
10. The social historian Ronald Hall describes the bleaching syndrome in an excellent article discussing the obsession with lightness and skin bleaching among African Americans and comparing it to the preference for lightness among Indian Hindus (Hall 1995a).
11. White's article in *Look* (1949) is a product of its time in its construction of light-colored American society as an ideal and the post-Sputnik conviction that science could cure all of society's ills.
12. Evelyn Nakano Glenn (2008) includes South Africa in her excellent review of global skin-lightening practices. She describes the continued manufacture and export of mercurial bleaching products in countries of the European Union and Britain long after their sale had been banned in these countries. On the clinical and social aspects of the use of skin bleaches in South Africa, see also Bentley-Phillips and Bayles 1975.
13. Thomas 2009, 189.
14. This statement is based on my own informal survey of newspaper articles and editorials from Nairobi, Kenya, from 1987 through 2010. Skin bleaching is a recurrent and polarizing topic: letters to the editor from men who declare a preference for women with lighter skin became more common over this period.
15. Innate preferences for light skin, if they exist, may be related to the fact that adult females and babies in all populations have lighter skin than adult males (see chapters 5 and 12).
16. On colorism, see Glenn 2008; Keith and Herring 1991; Hall 1995b, 2001; Herring, Keith, and Horton 2004. On the effects of a preference for light skin on youth attitudes, see

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Living Color

The Biological and Social Meaning of Skin Color

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Title page. A scene from Brazil's Carnival epitomizes "living color." Mauricio Lima/AFP/Getty Images.

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13

Aspiring to Lightness

Preferences for light skin have arisen independently in many cultures, and they have been reinforced when different “cultures of lightness” have come into contact. Because having lighter skin has often been associated with higher social status, success, and happiness, people over the ages have sought to become lighter by various means. In parts of the world today, the simple knowledge that lightness is associated with higher status elsewhere is sufficient to promote the desire for skin lightening and sales of lightening products. Skin lightening is not a fad: it is the ineluctable commercial extension of the now-worldwide phenomenon of colorism. Discussion of the history of skin lightening and the social contexts in which it developed brings together themes introduced elsewhere in this book, including humanity’s preoccupation with the visual, status seeking, suggestibility, and susceptibility to social contagion.

SHADES OF PALE

Skin can be made to look lighter by applying whitening cosmetics, through the use of bleaching agents to decrease the production of pigment in the skin, or both. Whitening cosmetics and skin bleaches have been used for nearly two thousand years in the agricultural societies of Europe and Asia. The public display of white skin was of great social importance in eastern Asia and in western Europe from the sixteenth through the eighteenth century, and lightness acquired new meanings and enhanced value as European colonies in the Americas prospered through the labor of imported, dark-skinned slaves. In the twentieth century the production of skin-lightening compounds became sophisticated, commercialized, and highly profitable.

The early history of skin lightening is not well known because the earliest formulations belonged to concealed traditions of cooking, healing, and beautification that found their way into written records only when they became associated with a famous name. White lead (ceruse) was used by the ancient Greeks and Romans as a cosmetic, but it is from the Egyptian

queen Cleopatra (69–30 BCE) that we know that a mercury compound was used for the same reason. Cleopatra is said to have taken pains to keep her skin light, and her practice of bathing in asses' milk for the same purpose is legendary but possibly apocryphal. Cleopatra's skin color is not known with certainty, but her genetically determined color was probably moderately pigmented and capable of tanning. Her renowned lightness has been imitated and celebrated in writing and art for centuries (figure 30), but it probably owed more to parasols and general sun avoidance than to active skin lightening. Far from the Nile, in Japan, the appearance of a pure white skin was simulated using makeup made from rice powder and white lead that was mixed with starch. These preparations were popular with both men and women of high rank from the eighth through the twelfth century but later became more closely associated with women.

Starting in the mid-sixteenth century, "books of secrets" described the proportions of mercury or lead compounds along with other ingredients needed to produce effective skin-lightening compounds. Formulas developed independently in continental Europe and China spread to Britain and Japan, where they became central to the beauty routines of upper-class men and women. The popularity of white makeup and lightening preparations increased despite the fact that sustained use was known to produce "withered faces like an ape," stinking breath, rotting teeth, and an "evil air surrounding the entire body."[1] Toxic lighteners and white face powders caused health problems in those who used them and in the children who came in contact with them. In Europe, the children of sixteenth-century women who used white makeup were said to lose their teeth before they could walk, and Japanese children born to samurai mothers who used white-lead face paint suffered what we now know to be lead toxicity and disturbances of bone growth.

FIGURE 30. Gerard de Lairesse, *Cleopatra's Banquet,* 1680. Cleopatra's allegedly light skin was part of her allure, and her name has been used to sell millions of dollars' worth of merchandise, from skin-lightening creams to bathtubs. Photo courtesy of Rijksmuseum Amsterdam [Object No. SK-A-2115].

Neither sickness nor denunciations of vanity curbed the use of white cosmetics and lighteners. For many, the pursuit of social approval or advancement through lightness was worth the risk. What was remarkable about the history of skin whitening before the nineteenth century was that it was the province of those who were already light-skinned.[2] They wanted to look lighter because whiteness was a powerful signifier, representing freedom from outdoor toil and spiritual purity. Skin lighteners and lightening cosmetics took on different roles when they were adopted by people with dark skin, especially by the descendants of former slaves in the New World and by others who experienced discrimination because of dark color. To some, these products were agents of social elevation and personal transformation. To others, they were instruments of subjugation that diminished the value of dark skin and reinforced the self-doubt associated with it. To all, cosmetics were political.

THE ORIGINS OF COLORISM

Colorism is a type of skin-color bias that involves systematic discrimination against the darker-skinned members of a particular group. It is primarily a product of the skin-color hierarchy that became entrenched and institutionalized with the transatlantic slave trade, and it has been

collectively reinforced ever since. During the era of slavery in the United States, as discussed in chapter 11, people of African descent who were lighter-skinned enjoyed advantages: light skin, in the words of one historian, became their "most precious possession"[3] After the Civil War, lighter-skinned men of mixed ancestry continued in high-status positions. They enjoyed better educational opportunities, and many rose to positions of great social influence. Preferences for light-skinned students were common at many of the historic black colleges and universities established in the late nineteenth century because some school administrators considered it a waste of time to educate dark-skinned men and women for career paths that would be closed to them.

After Reconstruction, legally enforced segregation of "Negroes" and "whites" further heightened the awareness of skin tone among people with African ancestry. Negroes, as Chief Justice Taney observed when ruling in the *Dred Scott* case, were "far below" whites "in the scale of created beings."[4] In his novel *Pudd'nhead Wilson* (1894), Mark Twain used the fictional account of light-skinned boys switched as infants—one being 1/32 Negro—to expose the hypocrisy of a system that apportioned basic rights according to presumed race. Negroes were relegated "by a fiction of law and custom" to lives without privilege. Twain's protagonist, fearing that his Negro ancestry would be exposed, "came to have a hunted sense and a hunted look, and then he fled away to the hilltops and solitudes. He said to himself that the curse of Ham was upon him."[5] Individuals able to pass as white enjoyed immense social advantages and were spared the segregation and shame associated with blackness. "Passing" became so common in the early twentieth century that some establishments in Washington, DC, employed African-American doormen "to spot and bounce intruders whose racial origins were undetectable by whites."[6]

The decades from the 1880s through the 1940s witnessed the rise of a mulatto elite in the United States. Preferences for lighter skin tones within the African-American community were pronounced, and darker skin tones were increasingly stigmatized. Skin color defined personal choice and prospects, and the names associated with skin colors created what was, effectively, a caste system: high yellow, high yella, crème-colored, ginger, saffron, octoroon, quadroon, bronze, mulatto, red-bone, light brown, black as tar, coal, blue-veined, café au lait, pinkie, blue-black. Girls and young women, especially, were encouraged not to play in the sun because darkened skin would reduce their chances of attracting a light-skinned husband and having light-skinned children. Individuals who could pass usually did so. Some light-skinned individuals, like the acclaimed *New York Times* book critic Anatole Broyard (1920–90), became famous as whites

and never revealed their ancestry, even to their children. Others wrestled with internal conflicts over self-identification. The author Jean Toomer (1894–1967) identified himself at different times in his life as "white," "Negro," and, finally, "American": his renunciation of his African ancestry late in life represented a wish not to be judged within the narrow confines of "Negro literature."[7] In social contexts defined by color, becoming lighter improved prospects for education and employment, social mobility, and marriage. Selective breeding toward whiteness was advanced as a long-term solution, but in the short term, many resorted to harsh chemicals to bleach their skin to a more socially acceptable shade.

SKIN BLEACHING

The commercial development, production, and marketing of skin-bleaching products began in the United States in the post-Reconstruction era, as segregationist Jim Crow laws restricted the opportunities and prospects of African-Americans, especially in the South. At a time when American culture was suffused with caricatures of African Americans with dark skin, "vicious" and kinky hair, and apelike features, these new cosmetic preparations promised relief from discrimination along with social advancement. The Madam C. J. Walker Company encouraged buyers with its invocations to "add beauty to brains for success," while Palmer's Skin Success cream promised that its users would experience "a whole new world." The lofty rhetoric of this advertising competed with sharp criticism from social reformers, educators, ministers, and journalists in African American communities, who argued that skin bleaching only reinforced the association between color and character that had already caused so much suffering and disenfranchisement. The social activist E. Azalia Hackley (1867–1922) stated the problem clearly: "The time has come to fight, not only for rights, but for looks as well."[8] Over time, marketing of skin bleaches became more nuanced, evoking images of mythic and exotic beauty to encourage consumers to pursue a universal ideal of beauty. The Kashmir Chemical Company, manufacturers of Nile Queen skin and hair products, invoked the sensual imagery associated with Cleopatra (figure 31). These refined advertising messages succeeded insofar as sales of skin lighteners increased during the 1920s and 1930s, and the iconography of lightness prevailed in the media. The blues singer Bessie Smith (1894–1937) was not alone, however, in literally singing the praises of blackness in her "Young Woman's Blues": "I'm as good as any woman in your town / I ain't no high yella, I'm a deep killer brown" (figure 32).[9]

FIGURE 31. In the United States, advertisements for skin bleaches during the early twentieth century connected skin lightening with enhanced beauty and social betterment. Photo courtesy Chicago History Museum (Manuscript ICHi-64852).

Through the first half of the twentieth century, the "bleaching syndrome" had a strong hold on African-American culture.[10] In 1949, the civil rights leader Walter White declared in *Look* magazine that "science [had] conquered the color line" through the discovery of a chemical that could "change the color of skin from black to white." "If completely perfected and widely used," White averred, "this chemical could hit the structure of society with the impact of an atomic bomb." Himself one-fourth African, White was convinced that use of the new chemical bleaching agent, monobenzyl ether of hydroquinone, would allow dark-skinned people to pass as whites, thereby eliminating "the color line, the shame of the twentieth century."[11] Hydroquinone—a related chemical with fewer side effects—did become popular, but it never achieved the universal adoption or the liberating effects for which White had hoped.

FIGURE 32. Lyrics sung by the jazz great Bessie Smith flouted the social conventions of her time by promoting pride in dark skin. Photo by Carl Van Vechten, 1936, courtesy of the Library of Congress, Prints & Photographs Division [LC-DIG-ppmsca-09571].

During the 1960s and 1970s the popularity of skin bleaching in the United States waned temporarily with the rise of the Black is Beautiful movement and with the 1973 ban on sales of mercury-containing skin bleaching creams because of their toxicity (box 27). The skin-bleaching industry and ideology did not disappear, however; they just mutated, created a new language for themselves, and migrated into new markets. New bleaching agents were developed, and in the late 1960s, many African American–owned cosmetics companies that produced skin bleaches and hair straighteners were bought by multinational conglomerates such as L'Oreal and Revlon. Sales of skin-bleaching agents in the United States recovered, buoyed by sales messages emphasizing "brightening" and the development of a "glowing" complexion. Skin lightening also received boosts from the popularity of light-skinned African-American celebrities whose complexions—whether produced by chemical bleaching or sun avoidance—were widely admired. Markets for skin lighteners were also expanding in South Africa, the Caribbean, and Asia, fueled by the real and perceived social benefits of lighter skin and the marketing expertise of multinational cosmetics companies.

The popularity of skin-bleaching creams in South Africa during the apartheid era was predictable. The largest markets for skin lightening have developed in places where the social costs of darkness have been greatest. Mercury-based skin bleaches, introduced into South Africa from

the United States in the 1930s, became enormously popular, especially among people classified as Coloured or Black.[12] Skin lighteners were praised for "smoothening" the skin of the face and for elevating the social status of both men and women. During apartheid, Black women used skin bleaches to obtain jobs often reserved for Coloured women. The unsightly skin blotches that often appeared following repeated use of skin lighteners were seen as positive evidence of being modern. Skin lighteners took away "the Blackness." Darkly pigmented skin had become a disease in need of a cure. After mercurials were banned in 1973, bleaches containing hydroquinone or monobenzyl ether of hydroquinone became more popular. Mercury-based preparations were still considered the most efficacious, however, and illegal imports of mercurial creams and soaps from Europe, Great Britain, and Ireland persisted until the making of these products was finally discontinued less than a decade ago.

BOX 27 Coming Clean on Skin-Bleaching Agents

Skin-lightening chemicals decrease the production of melanin in melanocytes (melanin-producing cells). Most of them work by suppressing tyrosinase, an enzyme governing melanin production. The oldest known skin bleaches are mercury-based creams and ointments, sometimes known as mercurials. Although banned by the Food and Drug Administration (FDA) of the United States in 1973 and by the countries of what is now the European Union (EU) in 1976, mercurials continued to be produced in the EU and exported to countries in Africa and the Caribbean until recently.

Mercurials were mostly superseded by hydroquinone-based preparations in the 1970s and 1980s. Hydroquinone lightens the skin by suppressing tyrosinase and by releasing chemicals that are toxic to melanosomes (melanin-containing bodies within skin cells). Banned by the EU and Japan in 2001, hydroquinone continues to be used in the United States in over-the-counter skin-lightening preparations (containing up to 2 percent hydroquinone) and prescription-only creams (containing up to 4 percent). It is often combined with corticosteroids, which also have lightening effects. A ban on sales of hydroquinone-containing creams was proposed by the FDA in the United States in 2006 but was opposed by many dermatologists.

The dangers of mercurials and hydroquinone have spurred the search for other compounds that can suppress melanin production without harmful side effects. Some of these are chemical relatives of hydroquinone, such as arbutin, which is derived from cranberries and other fruits. Others, such as kojic acid and azelaic acid, are derived from microorganisms, and many others, like aloesin, licorice extract, and hydroxystilbene compounds, are flavonoids derived from plant leaves, bark, and flowers. Many commercial preparations combine several lightening agents. All skin-lightening agents, even ones now considered safe, have side effects, which are summarized in the table below.

Agent	Mechanism of action	Harmful side effects
Mercurials	Suppression of tyrosinase	Dermatitis (skin inflammation), hyperpigmentation (excess pigmentation), permanent kidney damage, neurological symptoms (anxiety, depression, and psychosis)
Hydroquinone	Suppression of tyrosinase	Dermatitis, hyperpigmentation, redness, stretch marks, ochronosis (darkening and thickening of skin), squamous-cell carcinoma
Arbutin, kojic acid, azelaic acid, and flavonoids	Suppression of tyrosinase	Dermatitis, redness, increase in melanin production after prolonged use
Niacinimide	Inhibition of melanosome transfer into keratinocytes	Dermatitis, redness
α-hydroxy acids (glycolic, retinoic, salicylic, and linoleic acids)	Exfoliation and inhibition of tyrosinase	Dermatitis, redness, scaling, and drying
Vitamin C, Vitamin E	Reduction of melanin production through antioxidant activity	Dermatitis, redness

SOURCES: Gillbro and Olsson 2011; Ladizinski, Mistry, and Kundu 2011.

FIGURE 33. The use of skin bleaches in South Africa was discouraged through educational posters like this, which were published in widely circulated periodicals. This example comes from *Learn and Teach* 2, no. 5 (1982): 1.

Recent studies on the use of and opposition to skin lightening products in South Africa have highlighted "the dense interaction of racial hierarchies, capitalist commerce, and individual desires for betterment" that parallel

the American situation.[13] Opposition to skin bleaching in South Africa gained strength when antiapartheid activists emphasized that lightening agents were harmful to health and individual self-image (figure 33). The Black is Beautiful campaigns of late-twentieth-century South Africa probably had more long-term success in reducing the popularity of skin lighteners than those in the United States because they combined social and medical information into comprehensive messages of personal empowerment and national pride. The market for skin lightening products in South Africa is still large, however, and cosmetics and skin-care companies have modified their advertising and ingredients to attract new users. These companies have also been resourceful in extending their markets throughout sub-Saharan Africa. Selling their products is easy when beauty, success, and happiness are linked to lightness. Demand for skin lighteners is high in African countries such as Nigeria, Ghana, Tanzania, and Kenya that have burgeoning economies and people eager to improve their status and prospects. Advertising has mostly targeted women of marriageable age, but it has also been credited with helping to shift male preferences toward women with light-colored skin.[14] Widely circulated images of light-skinned African American and Indian celebrities also contribute to aspirations to lightness on the part of both women and men. When women can't afford to buy lighteners containing "safe" skin bleaches, they buy illegally imported hydroquinone-based products or resort to under-the-counter, locally manufactured mercury-based preparations, often with disastrous effects.

COLORISM AS A GLOBAL PHENOMENON

Preferences for light skin and biases against dark skin are among the most serious social problems in the world today. These preferences are not innate.[15] The dominant culture sets and perpetuates the standards of physical attractiveness, and these standards are overwhelmingly Euro-American and biased toward light skin. Media-driven messages emphasizing the beauty and success associated with light skin amplify existing societal preferences, creating a vicious cycle of aspiration to an unattainable ideal that affects men as well as women. In India, the most popular brand of skin lightener has been marketed through the promise of making a positive first impression with lighter skin.

BOX 28 The Costs of Colorism

Skin tone affects ratings of attractiveness by others and self-empowerment, especially in women. The relationship is complex, and women who are judged to be unattractive are more likely to experience discrimination based on dark skin color than those judged attractive.[1] Skin

tone also affects personal income and social position. According to a 2004 study among African Americans, 37 percent of people with dark skin tones were classified in the category of postindustrial poverty-stricken (or the underclass), while 25 percent were in a category considerably above poverty (or affluent).[2] The figures were almost reversed for light-skinned African Americans: 40 percent were classified as affluent, and 23 percent were classified as underclass.

Among all new legal immigrants to the United States—including those from Latin America, Mexico, and Asia—those with darker skin tones earn 17 percent less than those with lighter skin.[3] Despite the effects of colorism, most of these lighter-skinned people are likely to be considered "honorary whites." Some scholars contend that they will always, however, be considered an intermediate category in the emerging American "pigmentocracy," between "whites" and "collective blacks," and that they will never be regarded as legitimate representatives of the nation.[4]

1. This is one of the salient findings in a study of African Americans conducted by Maxine Thompson and Verna Keith (2004).

2. See Bowman, Muhammed, and Ifatunij 2004.

3. Based on the 2003 New Immigrant Survey, as cited by Hersch 2010.

4. Eduardo Bonilla-Silva and David Dietrich describe an emerging triracial, stratified system in the United States composed of "whites" (including "new whites," such as Russians and assimilated Latinos), "honorary whites" (including light-skinned Latinos and most multiracial individuals), and "collective blacks" (including African Americans and dark-skinned Latinos). See Bonilla-Silva and Dietrich 2009, 153–154.

In the past twenty years, many social science scholars have turned their attention to documenting colorism around the world.[16] From the communities of color in the United States and South Africa to the Caribbean, India, the Philippines, Korea, Latin America, and Mexico, skin tone is a major determinant of social stratification and its outcomes: education, occupation, income, and health status (box 28). Skin tone has more significant consequences for women than for men, because men are partial to lighter women. For very dark women, the word *dark* has consequently acquired the loaded meanings of lower-class, ugly, and unimportant. When described as dark, impressionable teens can become obsessed with skin color and consumed with a desire to be light, with predictable negative effects on their self-esteem and academic performance.[17] Chronic use of skin lighteners tends to lower selfesteem further, especially when the complications from persistent use result in the deterioration of facial skin and lead to ostracism.

The problems of colorism and skin lightening are conjoined: they have spread and been magnified by the rapid dissemination of electronic images and the advertising power of multinational companies. The potential of visual media to determine the preferences of suggestible and status-conscious people has never been greater.

PLATE 1. The thirty-six Von Luschan color tiles for assessing the color of unexposed skin. The tiles provided the standards for recording skin color until the introduction of reflectometry in the mid-twentieth century. © 2011 President and Fellows of Harvard, Peabody Museum No. 2005.1.168.

PLATE 2. Alexa Wright, *Skin: Maxine*. Vitiligo is caused by cessation of melanin production in patches of skin. People affected by vitiligo sometimes suffer psychological discomfort because of their appearance, and support networks help affected people to cope. Reproduced courtesy of the artist.

PLATE 3. This Khoe-San woman and her baby from South Africa have moderately pigmented skin capable of tanning. Their skin is typical of people who have evolved in the middle latitudes under seasonally strong UVR. Photo courtesy of Edward S. Ross.

PLATE 4. The contrast in skin hue between men and women is emphasized in these highly stylized masks used in Japanese Noh theater. Photos courtesy of T. Inoue, Inoue Corporation, www.nohmask21.com.

PLATE 5. Muslim women in Afghanistan wearing traditional burqas cannot produce vitamin D in their skin even under the sunniest conditions. Black wool prevents nearly 99 percent of UVB from reaching the skin. Photo courtesy of Edward S. Ross.

PLATE 6. Wall of the tomb of Sebekhotep in Thebes (Eighteenth Dynasty, ca. 1400 BCE). Several men, probably Nubians, were depicted with black skin by Egyptian artists. Photo © The Trustees of the British Museum. All rights reserved.

PLATE 7. Jan Mostaert, *Portrait of an African Man* (ca. 1520–30). Many of the Africans who arrived in Europe in late medieval and early Renaissance times became scholars and advisers. Photo courtesy of the Rijksmuseum Amsterdam.

PLATE 8. Skin tones vary according to levels of UVR and are darker near the equator and lighter toward the poles. The gradient is more obvious in the Old World and less so in the New World, where people have lived for only about 10,000 to 15,000 years. Illustration © Mauricio Antón 2011.

PLATE 9. Mattel's Malibu Barbie was marketed to girls in the early 1970s, before the dangers of suntanning were fully appreciated. The glamor, sex appeal, and studied leisure associated with a tan and with tanned celebrities contribute to the continued popularity of the tanned look today. © 2011 Mattel, Inc. All rights reserved.

17. The irony of color-based discrimination in what was a nominally colorblind "racial democracy" is discussed in Vieira 1995.
18. *Varna* and *jati* are often and erroneously referred to together as "caste." The reality of the two systems of classification is much more subtle and reflects the interplay of Vedic and Hindu philosophy in Indian history. See Basahm 1985. André Beteille's account of race and descent in India (1968) provides an excellent summary of modern attitudes toward skin color.
19. On the meaning of skin color in Japan and the association of whiteness with purity, see Wagatsuma 1967; Dower 2004.
20. See Dower 2004.
21. See Wagatsuma 1967.

13. ASPIRING TO LIGHTNESS

1. Spanish humanist text, quoted in Swiderski 2008, 166. Swiderski observes that mercury-based compounds were central to skin-lightening and cosmetics formulations for more than four hundred years. Mercury's toxicity was recognized early, but for many, this was outweighed by its beneficial effects on the appearance of the skin and its effectiveness as a cure for syphilis. The harmful effects of white-lead cosmetics on the children of Edo-period samurai are described in Nakashima et al. 2011.
2. See Dyer 1997.
3. James 2003, 19.
4. Constance McClaughlin Green, quoted in Moore 1999, 58. On the history of colorism among African Americans, see James 2003. For a succinct overview of the historical background to American colorism, see Neal and Wilson 1989.
5. Twain 1997, 28, 66.
6. Gatewood 2000, 349.
7. The importance of light skin in African-American culture is the focus of Marita Golden's memoir *Don't Play in the Sun* (2004). The list of African-American skin color terms appears on page 7. The subject of passing—generally involving famous individuals—and of people being unaware of their ancestry has been the subject of many recent biographies, scholarly studies, and novels. See, for instance, Broyard 2007; Byrd and Gates 2011.
8. Quoted in Peiss 1998, 205. Peiss's monograph *Hope in a Jar* is one of the most insightful recent works on the politics of appearance.
9. Quoted in Walker 2007, 77.
10. The social historian Ronald Hall describes the bleaching syndrome in an excellent article discussing the obsession with lightness and skin bleaching among African Americans and comparing it to the preference for lightness among Indian Hindus (Hall 1995a).
11. White's article in *Look* (1949) is a product of its time in its construction of light-colored American society as an ideal and the post-Sputnik conviction that science could cure all of society's ills.
12. Evelyn Nakano Glenn (2008) includes South Africa in her excellent review of global skin-lightening practices. She describes the continued manufacture and export of mercurial bleaching products in countries of the European Union and Britain long after their sale had been banned in these countries. On the clinical and social aspects of the use of skin bleaches in South Africa, see also Bentley-Phillips and Bayles 1975.
13. Thomas 2009, 189.
14. This statement is based on my own informal survey of newspaper articles and editorials from Nairobi, Kenya, from 1987 through 2010. Skin bleaching is a recurrent and polarizing topic: letters to the editor from men who declare a preference for women with lighter skin became more common over this period.
15. Innate preferences for light skin, if they exist, may be related to the fact that adult females and babies in all populations have lighter skin than adult males (see chapters 5 and 12).
16. On colorism, see Glenn 2008; Keith and Herring 1991; Hall 1995b, 2001; Herring, Keith, and Horton 2004. On the effects of a preference for light skin on youth attitudes, see

Rondilla and Spickard 2007.

17. See Glenn 2008; Thompson and Keith 2004.

14. DESIRING DARKNESS

1. The history of sun exposure in literature and art is briefly reviewed in Giacomoni 2001.

2. A similar observation was first made by the anthropologist Marvin Harris, whose research on attitudes toward tanning is summarized and quoted in Kerry Segrave's excellent book *Suntanning in 20th Century America* (2005). Segrave's book provides a thorough and provocative review of attitudes toward tanning and the development of recreational tanning as a pastime and industry.

3. On the decline of celebrity tanning, see Jablonski 2010. Thomas Rajakumar and Stephen Thomas have observed that the promotion of tanning followed the growth of heliotherapy for rickets and tuberculosis. On the changing perceptions of suntanning, see Randle 1997; Rajakumar and Thomas 2005.

4. Kaur et al. 2006. For a good recent review of the literature on tanning and physiological dependence, see Nolan and Feldman 2009. The behavioral reinforcement of tanning behavior has been studied extensively by Smita Banerjee and colleagues (2009). High-risk UVR tanning at tanning parlors appears to be particularly heavily influenced by peer pressure.

5. Mosher and Danoff-Burg 2010. See also Kaur et al. 2006; Bagdasarov et al. 2008; Banerjee et al. 2009; Nolan and Feldman 2009.

6. A good review of the effects of UVR on "Asian skin" is provided in Chung 2001.

7. The statistics on the tanning industry from 2010 come from Zwolack 2010. Katherine Hoerster and colleagues concluded that the association between a lower UV index and higher facility density "may be due to residents' desires to seek warmth, tanned skin, or both when natural sunlight is less available" (Hoerster et al. 2009, 3).

8. The "optimistic bias effect" comprises the dual perceptions that negative events are more likely to affect other people than oneself and that positive events are more likely to happen to oneself than to others. The effect, first described by Neil Weinstein in 1980, has been shown by Arthur Miller and colleagues (among others) to affect perception of risk of skin cancer from UVR exposure. See Weinstein 1980; Miller et al. 1990.

9. These titles are from Fleischer and Fleischer 1992; McPhail 1997; and Amonette 1994.

10. Use of chemical sunscreens with higher SPF values is associated with longer periods of UVR exposure among intentional tanners. Longer exposures to UVR, even with high-SPF sunscreen, are associated with more UVA penetration into the skin and elevated melanoma risk (Autier 2009).

11. Robinson et al. 2008.

12. See Kourosh, Keith, and Horton 2010; Nolan and Feldman 2009.

13. For more details about the chemistry and action of DHA, see Monfrecola and Prizio 2001.

14. On the fallacious claims of "controlled" and safe tanning being circulated to teenagers by the indoor tanning industry, see Balk and Geller 2008.

15. For more information about celebrity tanning and the "Go with Your Own Glow" campaign, see Jablonski 2010 and the Skin Cancer Foundation website, www.skincancer.org/healthy-lifestyle/go-with-your-own-glow .

16. Satherley 2011.

15. LIVING IN COLOR

1. See Williams and Eberhardt 2008. On the effects of race on differential access to the goods of society, see Ossorio and Duster 2005.

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Living Color

The Biological and Social Meaning of Skin Color

Nina G. Jablonski

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Title page. A scene from Brazil's Carnival epitomizes "living color." Mauricio Lima/AFP/Getty Images.

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14

Desiring Darkness

As we have seen, for much of recent history and around the world, pale skin has been prized, to such a degree that people have been willing to risk illness and disfigurement to obtain it. It is paradoxical, then, that tanned skin became fashionable and glamorous in Europe and the Americas in the mid-twentieth-century—to such a degree that people have been willing to risk painful burns and skin cancer to obtain it.

THE ORIGINS OF RECREATIONAL TANNING

After agriculture became widespread and complex societies developed, visible skin darkening was associated with sun exposure from outdoor labor. It is hard to know when this association became socially important, but paintings dating from about 500 BCE and earlier from Egypt, Greece, northern Italy, India, and China show people with broad-brimmed hats or parasols who are clearly using these items for sun protection. Written accounts from these societies attest that untanned, nearly white skin was strongly preferred in women and loved ones in general, and that this preference developed independently in many parts of the world.[1]

Untanned skin became associated with two different but not mutually exclusive characteristics. The first is social privilege. Pale skin signaled that an individual had the means to avoid outdoor toil and to be protected from strong sun when out of doors: it was a mark of upper-class status.[2] The second is sexual desirability. Pale and untanned skin was associated with beauty and youth. From its association with outdoor labor, sun-darkened skin was also associated with masculinity, but higher-ranking men protected their skin from the sun when possible.

People worked hard to be pale by staying out of the sun, developing ingenious devices and costumes to protect themselves from the sun, and applying cosmetics that simulated a pale and untanned look. Clothing and hats protected wearers from the sun for centuries and are still used in many parts of the world (figure 34). Parasols were added later in Egypt

and—along with hats—served as fashion statements as well as sun shields. In some cultures, large parasols, and attendants who held them, were symbols of royalty. This cultural framework remained in place through the early twentieth century.

Tans became fashionable when the people who had them were of high status and widely visible to those who weren't. Prior to the development of print media such as newspapers and magazines, images of important people were circulated on coins and, later, stamps, as well as in sculptures and paintings. For the most part, the people depicted were royalty, military leaders, and religious figures: famous entertainers, authors, and athletes rarely merited celebrity status as they do today. For most of human history, fashion was modeled after a look that people had seen in person or in the disseminated likenesses of revered and exalted figures. The Roman emperor Nero's attempts to emulate the look and lifestyle of Alexander the Great—based on various depictions of Alexander—offer a good, if somewhat preposterous, example.

The trend toward socially acceptable tans began in the early twentieth century, when women—whose paleness had previously been highly prized—began spending more of their leisure time outdoors with exposed skin. It was reinforced by images of celebrities (in the modern sense of the word) with obvious, confidently displayed suntans widely disseminated by magazines and newspapers.[3] After Coco Chanel proclaimed in the late 1920s that tanning was fashionable and set a personal example, tanning was pursued as an activity, and a tan became a symbol of leisure, high status, and style. Images of visibly tanned women began appearing in *Vogue* magazine.

Tanning was also, to a degree, a sign of freedom. As women in Europe and the Americas achieved more legal rights and social freedoms in the 1920s, norms of dress relaxed considerably, and it became socially acceptable to bare more skin to the sun and to the eyes of people outside the home. Sunbathing was indirectly promoted by fashion designers who created new outfits—including the bikini, invented in 1946—to maximize sun exposure while on the beach. When photographs of female celebrities in bikinis and other revealing attire hit the newspapers and fashion magazines in the 1960s, the effect was sensational (figure 35). The suntanning craze was also embraced by many men, who eagerly followed the examples of prominent male movie stars who would not be caught dead without a tan.

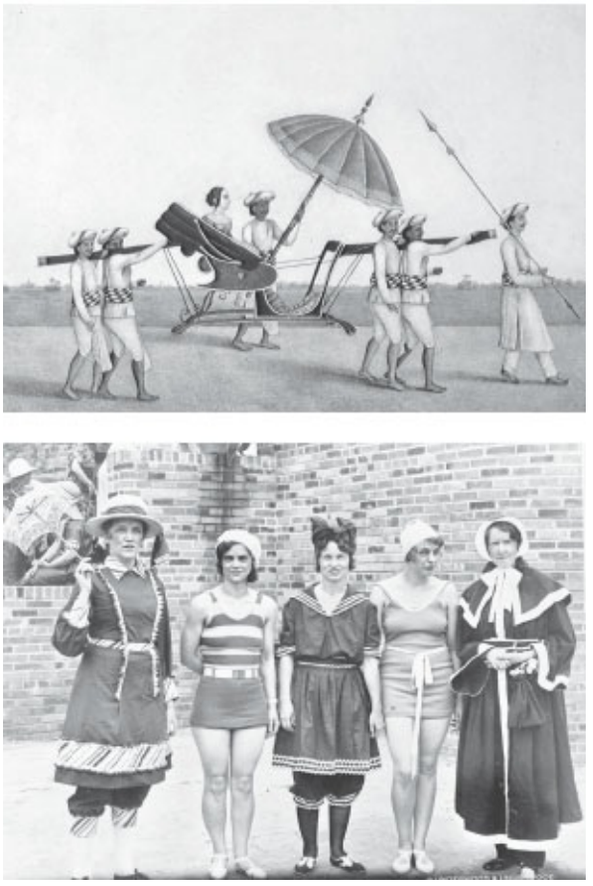

FIGURE 34. Before the era of chemical sunscreens, modes of sun protection included concealing clothing, hats, and parasols. (Top) This nineteenth-century Indian painting depicts a lightly pigmented European woman being shielded from the hot sun by a darkly pigmented native man. © British Library Board. All rights reserved. (Bottom) Victorian-era beachwear protected both a woman's modesty and her skin. Photo courtesy Library of Congress, Prints & Photographs Division [LC-USZ62–116423].

Fads catch on when many people can follow them easily without spending a lot of money, and they endure if there is continued social reinforcement of the behavior. In the 1960s and 1970s, getting a tan didn't require a trip to the French Riviera: it could be achieved in the backyard. It imparted a sense of well-being and glamour. Social reinforcement of tanning came in many forms, including Mattel's Malibu Barbie doll, which brought the glamour of a tanned Southern California girl into the hands of pallid tweens across America in the early 1970s. Fifty years on, the tanning craze has not yet run its course.

The popularity of sunbathing was also fueled by the discovery of vitamin D, the "sunshine vitamin," and recognition of the salutary effects of heliotherapy in reversing the course of rickets and tuberculosis. But it wasn't just this knowledge, or the association of tanning with glamour and the high life, that made recreational tanning into one of the most durable and widespread leisure pastimes ever. It was the feelgood factor: the feeling of well-being and relaxation that many people felt after being in the

sun. It is still not clear exactly why tanning makes people feel good. There is some evidence that the habit of tanning is reinforced in some people because UVR produces natural opioids in the skin, specifically the potent neurotransmitter beta-endorphin. Endorphins produce the pleasant feeling sometimes known as runner's high: it is associated with prolonged aerobic exercise and implicated in exercise addiction. The deduction follows that suntanning may be addictive. In one study, frequent tanners were given a drug that blocked the action of opioids. Four out of eight experienced withdrawal symptoms before UVR exposure.[4] This finding suggests that UVR tanning has addictive effects in frequent tanners and that these effects are based on the production of opioids in the body. This conclusion was strengthened by the results of a recent survey showing that more than 30 percent of undergraduates frequenting indoor tanning facilities in a north-eastern American city met standard criteria for addiction.[5] The urge for tanning was reinforced by a desire for appearance enhancement, feelings of relaxation, improved mood, and better socialization. Much remains to be learned about the brain's responses to UVR and the physiological mechanisms of tanning addiction, but the reality of the phenomenon is no longer denied.

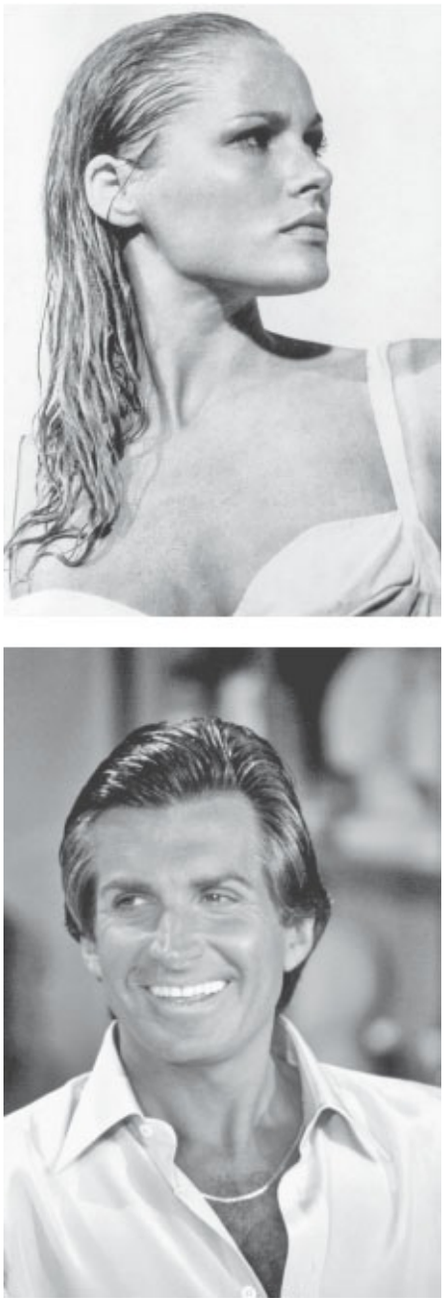

FIGURE 35. Images of young, healthy celebrities in the mid-twentieth century greatly promoted the social acceptability and practice of suntanning. (Top) The image of a bronzed Ursula Andress in a bikini top proudly announces her tan line. (Bottom) Images of a virile George Hamilton provided positive reinforcement of tanning behavior among men and promoted the desirability of the year-round tan. Photos courtesy of Rex USA.

Tanning, or at least having a tanned look, can also be reinforced by social interactions with family members, close friends, and romantic partners. Young women, especially, are much more likely to want to get a tan if their friends enjoy tanning and if friends, family, and significant others tell them that they look more attractive with a tan. Conversely, if family or close friends discourage tanning, they are much less likely to engage in it. In Asia, tanning never became popular in the mid-twentieth century because

tanned or dark skin was still associated with low status and poor marriage prospects. Another reason for its lack of popularity may have to do with the physical reactions to UVR among people from East Asia (China, Korea, and Japan). A higher dose of UVR is required to induce melanin production in the first place, but once a tan is achieved, it lasts much longer.[6] Marriageable young women, in particular, were disparaged and scolded if they came home with a tan. Asians living in Europe and the Americas tend to have more permissive attitudes toward tanning with each successive generation, but deliberate tanning is still not as popular as it is among most people of European descent.

Deep tanning became very popular in Europe and the Americas from the mid-1960s through the mid-1980s, before the risks of skin cancer from UVR exposure were widely known. Baby oil or heavily scented tanning oil was sometimes applied to the skin for a basting effect (figure 36). As the dangers of UVR exposure started to become more widely known in the 1980s, tanning products started including ingredients that provided sun protection, but these were often spurned by serious tanners. For many years, it seemed impossible to be too tanned, although people who obviously worked to maintain their tans were considered vain. Images of spontaneous and "sun-kissed" tans were wildly popular and spurred the development of cosmetic bronzers that imitated the pattern of sunlight falling on the face. Synonymous with glamour, the good life, and good health, suntans were used to advertise everything from chewing gum to motorcycles.

FIGURE 36. Recreational tanning took off in the 1960s and 1970s, when it was common to see people "working on their tans" at the beach, at the pool, and in the backyard. Photo by Jack Dallinger, courtesy of Matthew Dallinger.

THE TANNING INDUSTRY

Although outdoor tanning had the advantage of being free, it wasn't possible for everyone who wanted a tan to lie outside in the middle of the day to catch rays. The first tanning salon in the United States opened in 1978, and by 1988 more than 18,000 tanning establishments were in business. By 2010, the number had grown to nearly 24,000, and the tanning industry was estimated to be worth $2.82 billion. Tanning parlors made it possible to get a tan at any time of the day or year and promised to deliver tans quickly and safely. The highest densities of tanning facilities in the United States developed in cities with low UV indexes and lots of lightly pigmented people.[7] On-demand tanning in posh salons acquired its own special cachet and has remained popular because of its association with busy celebrities—and the possibility of getting the "vacation look" without the vacation.

When the risks of skin cancer associated with UVR started to be publicized in the 1980s and 1990s, tanning remained popular. Informed of the dangers of skin cancer, many people displayed an unrealistic belief that they were not at risk.[8] Campaigns aimed especially at indoor tanners in the late 1980s emphasized the tremendously elevated risk (a 75 percent greater chance) of melanoma among frequent indoor tanners. These campaigns were effective, but only to a point. In surveys, the percentage of individuals who knew about the importance of limiting tanning to prevent melanoma increased greatly between 1988 and 1994, from 25 percent to 77 percent, but by 2007 the percentage had dropped to 67 percent. The titles of scientific papers published during the 1990s about the risks of tanning (especially in salons) betrayed the growing exasperation in medical circles over tanning behavior: "North Carolina Tanning Operators: Hazard on the Horizon?" (1992), "New Campaigns Needed to Remind the Public of the Dangers of Tanning Salons" (1994), and *"There's No Such Thing as a Healthy Glow:* Cutaneous Malignant Melanoma" (1997).[9]

Public health messages about the hazards of UVR tanning met with resistance or were ignored, in large part because tans were still considered attractive. The compliment "You look great with a tan" was sufficient to induce most people to continue tanning even if they knew it was harmful. Improvements in chemical sunscreens in the 1990s made it possible for people to feel safe while spending more time in the sun (box 29). Sunscreens with higher SPFs made it possible to get a "slow tan" and implied a reduced cancer risk.[10]

BOX 29 Chemical Sunscreens and SPF

Sunscreens are generally classified as organic or inorganic. The organic variety includes old formulations like PABA (para-amino-benzoic acid) and various cinnamates (related to the

flavor components of cinnamon), along with newer compounds like Mexoryl SX (terephthalydene dicamphor sulphonic acid). These sunscreens work by absorbing UVR and then dissipating the energy via heat or light.[1] Inorganic sunscreens like titanium dioxide and zinc oxide reflect or scatter UVR by creating a physical barrier layer between sunlight and the skin.

Chemical sunscreens are rated according to their sun protection factor, or SPF. The SPF is a measure of how much UVR is required to produce sunburn in the presence of sunscreen relative to the amount required to produce sunburn on unprotected skin. As the SPF value increases, sunburn protection increases. The SPF is related not to the length of time of UVR exposure but to the amount, which is always highest at midday. Lightly pigmented people, who absorb more UVR than darkly pigmented people, require a higher-SPF sunscreen to protect themselves from UVR damage.

In the United States, the Food and Drug Administration has recently required that manufacturers of chemical sunscreens be able to prove protection against both UVA and UVB when claiming that an agent is "broad spectrum." It also stipulates that a sunscreen's water resistance be stated on the packaging. Sunscreens can be stated to offer protection for either forty or eighty minutes without reapplication.[2] The agency has also recommended that the maximum SPF claimed on product labels be "50+." For adequate sun protection, chemical sunscreens of at least SPF 15 should be applied according to manufacturers' directions and reapplied at least every two hours, or more frequently if the user is swimming or sweating.

1. For a comprehensive review of the mechanisms of action of chemical sunscreens, see Antoniou et al. 2008.

2. See United States Food and Drug Administration 2011.

TANOREXIA AND SUNLESS TANNING

Positive images of tanned people continued to grace video screens and magazines through the 1990s even as the risk of skin cancer from sun exposure became more widely known. Popular reaction to skin cancer risk from sun exposure was predictable. Many people used more sunscreen or sun protection and avoided intense sun exposure. Others did not change their behavior because a "natural tan" felt too good, "looked better," and brought compliments and approval. Between 1988 and 2007, indoor tanning among young adults in the United States increased from 1 percent to 27 percent.[11]

The persistence of tanning behavior in the face of known risks of skin aging and skin cancer is a major public health problem similar to smoking. "Like a drink or a cigarette," one study reported, "a sort of elation or relief offered by a tanning bed seems to eclipse thoughts of cancer patients, premature aging, or even physical disfigurement."[12] Those who seemed to be addicted to tanning were called "tanorexics" (box 30).

Many people who heeded warnings about the risks of UVR and reduced or eliminated UVR tanning still wanted a tanned look. During the 1990s and 2000s, they increasingly turned to sunless tanning agents to compensate for the lost glow. Sunless-tanning or self-tanning products are based on the action of dihydroxyacetone, or DHA, a compound that reacts

with proteins in the stratum corneum of the skin to impart a brown color similar to that produced by the tanning response. The same chemical reaction occurs when bread browns during baking in the oven. DHA is a safe coloring agent and has been approved for cosmetic use by the United States Food and Drug Administration and many other comparable authorities. The skin darkening produced by DHA confers minimal UVR protection. And because a DHA tan is a cosmetic dyeing of the surface of the skin, it lasts only a few days.[13] A natural tan is a complex mixture of yellow and red colors, but a DHA "tan" is yellower in most light-skinned people. The sallow color of DHA-tanned skin discouraged many people from using sunless tanning agents when they first appeared. This drawback has been remedied by the addition of antioxidants to DHA formulations. Even so, sunless tanning products used by people with naturally pale or lightly pigmented skin can produce an obviously artificial, deeply bronzed, deck-stained look (figure 37). The social calculus that goes into determining the most desirable level of artificial tan is complex, and errors are widely ridiculed.

BOX 30 Tanorexia

The word *tanorexia* was coined in 2005 as a catchy descriptor for skin-tanning addiction. The connection to anorexia was intended to convey the seriousness of the compulsive disorder that led some to engage in UV tanning even when it led to burning, visibly accelerated skin aging, and a remarkably elevated risk of skin cancers, including melanoma. Tanorexia is considered a type of body image disorder, or body dysmorphic disorder, in which affected individuals engage in repeated checking of their appearance in the mirror, grooming, scrutinizing, and picking at their skin. Tanning addicts sometimes endure burns and subject themselves to UVR beyond the threshold necessary to get a tan. The high frequency of scorching sunburns experienced by frequent tanners leads, on average, to 700 emergency room visits per 10,000 tanning parlors every year.

Compulsive tanners are highly knowledgeable about the risks of UV tanning, but this knowledge doesn't decrease their desire to tan or discourage their pursuit of tanning opportunities. It's clearly not just the bronzing effect of UV tanning that is driving the compulsion of the tanorexic. As one tanner put it, "You might feel the same amount of self-image confidence from a spray-on tan, but it really won't affect your mood like UVB/UVA will."[1]

1. Tanning addiction has been expertly reviewed by Arienne Kourosh and colleagues (2010); quote at p. 284.

FIGURE 37. At a celebrity event, the naturally lightly pigmented actor Anne Hathaway stands next to the visibly artificially tanned clothing designer Valentino. Sunless tans provide the social benefits of a natural tan without the risk of UVR exposure, but deep artificial tans can look incongruous. Photo courtesy of Rex USA.

Sunless tanning agents, which can be applied as creams or liquids at home, or sprayed on at a tanning facility, have provided people with a safe alternative to UVR tanning. Those who use such products, however, are generally older, female, and more educated. Many teens and younger adults—those most susceptible to tanning addiction—have succumbed to the joint promotion of UVR tanning and sunless tanning at tanning parlors, often referred to as the "booth and bottle option." The indoor tanning industry endorses "controlled tanning," which is touted as being safer than "uncontrolled" beach tanning, and fights for the legal right to "protect the freedom of individuals to acquire a suntan, via natural or artificial light."[14] Thus sunless tanning can be misused in the continued promotion of a tanned look to young, suggestible people.

After it became unfashionable to talk about celebrity suntanning, the rhetoric shifted to extolling the "healthy glow." Although the phrase was later appropriated by the "Go with Your Own Glow" non-tanning movement (see below), it described for many years the "sun-kissed" look of celebrities, achieved through a combination of sunscreen-mediated UVR exposure, spray-on tanning, and cosmetics. This look remains durably associated with glamour and sex appeal, partly as a result of heavy promotion among teens by the indoor tanning industry. Highly visible and widely imitated female celebrities such as Jennifer Lopez combine UVR

and sunless tanning and sustain the association of a tanned appearance with prestige and popularity.

THE NONTANNING AND "GO WITH YOUR OWN GLOW" MOVEMENT

More female celebrities today are proudly pale, including some—like Victoria Beckham and Nicola Roberts—who have explicitly abandoned the bronzed look.[15] The "Go with Your Own Glow" campaign of the Skin Cancer Foundation champions the ideal of radiant, natural, untanned skin and has declared the tanned look passé. This movement has gained impetus among socially responsible female celebrities who recognize that their looks and behavior powerfully influence millions of young women who are in their most vulnerable years for sun exposure that could lead to cancer later in life. Suntanning and artificial tanning will wane in popularity only when there is no longer social reinforcement for the tanned look. Pallor and even unnatural paleness are currently in fashion because of the popularity of attractive vampires, but it is hard to know if this fascination will last. A survey of 2,000 British women between the ages of 18 and 44, conducted in 2011 for the launch of a new television channel, found that 69 percent felt that having a tan made them feel healthier, and more than half said that a tan gave them more confidence when socializing.[16] These results suggest that it will take a long time before the tanned look fades.

PLATE 1. The thirty-six Von Luschan color tiles for assessing the color of unexposed skin. The tiles provided the standards for recording skin color until the introduction of reflectometry in the mid-twentieth century. © 2011 President and Fellows of Harvard, Peabody Museum No. 2005.1.168.

PLATE 2. Alexa Wright, *Skin: Maxine*. Vitiligo is caused by cessation of melanin production in patches of skin. People affected by vitiligo sometimes suffer psychological discomfort because of their appearance, and support networks help affected people to cope. Reproduced courtesy of the artist.

PLATE 3. This Khoe-San woman and her baby from South Africa have moderately pigmented skin capable of tanning. Their skin is typical of people who have evolved in the middle latitudes under seasonally strong UVR. Photo courtesy of Edward S. Ross.

PLATE 4. The contrast in skin hue between men and women is emphasized in these highly stylized masks used in Japanese Noh theater. Photos courtesy of T. Inoue, Inoue Corporation, www.nohmask21.com.

PLATE 5. Muslim women in Afghanistan wearing traditional burqas cannot produce vitamin D in their skin even under the sunniest conditions. Black wool prevents nearly 99 percent of UVB from reaching the skin. Photo courtesy of Edward S. Ross.

PLATE 6. Wall of the tomb of Sebekhotep in Thebes (Eighteenth Dynasty, ca. 1400 BCE). Several men, probably Nubians, were depicted with black skin by Egyptian artists. Photo © The Trustees of the British Museum. All rights reserved.

PLATE 7. Jan Mostaert, *Portrait of an African Man* (ca. 1520–30). Many of the Africans who arrived in Europe in late medieval and early Renaissance times became scholars and advisers. Photo courtesy of the Rijksmuseum Amsterdam.

PLATE 8. Skin tones vary according to levels of UVR and are darker near the equator and lighter toward the poles. The gradient is more obvious in the Old World and less so in the New World, where people have lived for only about 10,000 to 15,000 years. Illustration © Mauricio Antón 2011.

PLATE 9. Mattel's Malibu Barbie was marketed to girls in the early 1970s, before the dangers of suntanning were fully appreciated. The glamor, sex appeal, and studied leisure associated with a tan and with tanned celebrities contribute to the continued popularity of the tanned look today. © 2011 Mattel, Inc. All rights reserved.

Rondilla and Spickard 2007.

17. See Glenn 2008; Thompson and Keith 2004.

14. DESIRING DARKNESS

1. The history of sun exposure in literature and art is briefly reviewed in Giacomoni 2001.

2. A similar observation was first made by the anthropologist Marvin Harris, whose research on attitudes toward tanning is summarized and quoted in Kerry Segrave's excellent book *Suntanning in 20th Century America* (2005). Segrave's book provides a thorough and provocative review of attitudes toward tanning and the development of recreational tanning as a pastime and industry.

3. On the decline of celebrity tanning, see Jablonski 2010. Thomas Rajakumar and Stephen Thomas have observed that the promotion of tanning followed the growth of heliotherapy for rickets and tuberculosis. On the changing perceptions of suntanning, see Randle 1997; Rajakumar and Thomas 2005.

4. Kaur et al. 2006. For a good recent review of the literature on tanning and physiological dependence, see Nolan and Feldman 2009. The behavioral reinforcement of tanning behavior has been studied extensively by Smita Banerjee and colleagues (2009). High-risk UVR tanning at tanning parlors appears to be particularly heavily influenced by peer pressure.

5. Mosher and Danoff-Burg 2010. See also Kaur et al. 2006; Bagdasarov et al. 2008; Banerjee et al. 2009; Nolan and Feldman 2009.

6. A good review of the effects of UVR on "Asian skin" is provided in Chung 2001.

7. The statistics on the tanning industry from 2010 come from Zwolack 2010. Katherine Hoerster and colleagues concluded that the association between a lower UV index and higher facility density "may be due to residents' desires to seek warmth, tanned skin, or both when natural sunlight is less available" (Hoerster et al. 2009, 3).

8. The "optimistic bias effect" comprises the dual perceptions that negative events are more likely to affect other people than oneself and that positive events are more likely to happen to oneself than to others. The effect, first described by Neil Weinstein in 1980, has been shown by Arthur Miller and colleagues (among others) to affect perception of risk of skin cancer from UVR exposure. See Weinstein 1980; Miller et al. 1990.

9. These titles are from Fleischer and Fleischer 1992; McPhail 1997; and Amonette 1994.

10. Use of chemical sunscreens with higher SPF values is associated with longer periods of UVR exposure among intentional tanners. Longer exposures to UVR, even with high-SPF sunscreen, are associated with more UVA penetration into the skin and elevated melanoma risk (Autier 2009).

11. Robinson et al. 2008.

12. See Kourosh, Keith, and Horton 2010; Nolan and Feldman 2009.

13. For more details about the chemistry and action of DHA, see Monfrecola and Prizio 2001.

14. On the fallacious claims of "controlled" and safe tanning being circulated to teenagers by the indoor tanning industry, see Balk and Geller 2008.

15. For more information about celebrity tanning and the "Go with Your Own Glow" campaign, see Jablonski 2010 and the Skin Cancer Foundation website, www.skincancer.org/healthy-lifestyle/go-with-your-own-glow .

16. Satherley 2011.

15. LIVING IN COLOR

1. See Williams and Eberhardt 2008. On the effects of race on differential access to the goods of society, see Ossorio and Duster 2005.

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Living Color

The Biological and Social Meaning of Skin Color

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Title page. A scene from Brazil's Carnival epitomizes "living color." Mauricio Lima/AFP/Getty Images.

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15

Living in Color

There is no topic more illustrative of human history than skin color. It unites us in evolution and divides us by walls of bias and stereotype. It invites us to learn about the life and times of our distant ancestors and taunts us with evidence of the psychological manipulation of modern peoples. Human beings are highly visually oriented and suggestible primates, ever willing to accede to the beliefs of people who have power over us and ever able to change our behavior.

Skin and skin pigmentation were intensely influenced by evolutionary processes for hundreds of thousands of years of human evolution because skin, and skin alone, was our interface with the environment. Variation in human skin pigmentation was produced by evolution, and the processes by which this variation came about are well understood. Different skin tones evolved as humans dispersed into places with different levels of UVR. Adaptive changes in skin color depended first on the occurrence of random mutations to produce the genetic variation necessary to change skin pigmentation and then on natural selection to make those mutations the norm. The melanin that imparts color to human skin is an excellent natural sunscreen that protects the body from the most destructive effects of UVR while allowing some of this radiation to penetrate and stimulate vitamin D production. The degree of melanin pigmentation in the skin is thus an exquisite evolutionary compromise.

For most of human history, people's skin pigmentation was well matched to their varying environments. Dark pigmentation protected people living in places with high UVR, and varying degrees of depigmentation allowed people to live healthily by enabling vitamin D production even in places with moderate or low levels of UVR. This equilibrium has been upset, especially in the past four hundred years, by long-distance travel and indoor lifestyles. Many people live in places distant from their ancestral homelands and often under UVR conditions dramatically different from those experienced by their ancestors for thousands of years. Mismatches between skin pigmentation and local UVR conditions have led to a host of

health problems. People with little skin pigment suffer from the effects of too much UVR, and those with considerable melanin pigment suffer from the effects of too little. Now that a working understanding of both of these situations is at hand, serious health problems like skin cancer, folate and vitamin D deficiency, and the many diseases caused by vitamin D deficiency can be avoided. Knowledge of human evolution and of the movements and habits of people throughout history can lead to immediate improvements in human health.

There have never been any “pure” human populations or races. Archaeological and genetic evidence show us that during Neolithic times (roughly 10,000–3000 BCE), considerable intermingling of populations occurred. This was mostly a gradual ebbing and flowing of people according to changes in weather and climate and the introduction of agriculture and growth of populations. This mixing resulted in human populations on all continents being mutts and mongrels, some more so than others. Just as rapid and long-distance migrations affected our health, they also affected the ways people regarded and treated others. For thousands of years, the physical differences between “us” and “them” were generally minor. Even in ancient Egypt, where people of different skin tones and appearances came into regular contact, differences in appearance were not impediments to social and economic exchange, and meetings were mostly among social equals.

From the fifteenth century onward, abrupt encounters between different populations became frequent as seafarers, explorers, and traders in modern sailing boats came into contact with people on distant shores. These meetings often brought together people not only of different skin colors but also of different languages, cultures, and habits. Skin color nonetheless emerged as the most salient characteristic, around which stereotypes coalesced. More than anything else, it signified otherness.

Preliminary voyages and meetings matured into regular trading routes and associations. Some of these involved the mutual exchange of lucrative objects, but most involved highly asymmetrical relationships in which one side benefited inordinately at the expense of the other. At first, humans constituted a small fraction of trade objects, but by the mid-fifteenth century slaves had become commodities essential to the emergence and growth of modern commerce. The negativity of stereotypes associated with African slaves increased over time. Black and white polarities of color and morality were reinforced and biblical justifications invoked to render the dark-skinned less than human and defend their continued exploitation as slaves. The European intelligentsia contributed to these attitudes by supporting the development of schemes of human classification that ranked

the peoples of the world by skin color, cultural potential, and social worth.

Races were born from this urge to categorize. Created by men considered to be intellectual leaders, races were defined as authoritative categories. Skin color was the essential characteristic that gave a race its social valence and established its place in an explicit hierarchy. Other traits considered definitive were physiognomy, temperament, and culture. From the outset, there was never anything objective or scientific about races. They were congeries of physical and cultural traits, defined by people who had a steadfast belief in their own superiority and most of whom had never seen those they were defining. Race definitions changed over time and from one place to another, so that a partial list of race names reads like a catalog of arbitrariness: Aborigine, African, alpine, Arab, Asian, Australoid, Bantu, black, Caribbean, Capoid, Caucasoid, coloured, Indian, Jew, Latino, Malay, Mediterranean, mestizo, Mongoloid, mulatto, Negro, Nordic, Oriental, Semitic, white. In the twentieth century, defining the Jewish race by religion rather than skin color set the stage for arbitrary discrimination and brutal subjugation.

The ordering of races according to skin color has been one of the most stable intellectual constructs of all time, even though the number, inclusivity, and acceptability of racial categories have varied greatly. Races are socially constructed and regularly reconstructed. Because they have become institutional facts, races have persisted along with the implicit hierarchies from which they arose. When people persist in acting on their beliefs about race, they maintain a society in which access to the goods of society—such as quality education, high-status jobs, good housing, and good medical care—is stratified by race. Race becomes a destination, not just a label. Perpetuation of the false idea that races represent real biological entities promotes the notion that racial inequities are acceptable and lessens the interest of people in interacting with those placed in racial out-groups.[1]

Skin color is a lasting statement of our evolutionary history. It is a biological trait—an adaptation to the environment—that has come to have many layers of social meaning. It has continued to be important in human affairs despite laws in many countries prohibiting formal color-or raced-based discrimination. The already robust associations of skin tone with human worth have been further reinforced by the worldwide marketing of skin-lightening agents by international cosmetics conglomerates and the widespread propagation of images depicting people with lighter skin tones as being happier and more successful than those with dark skin. The so-called postracial era in the United States and other developed nations is one in which the most darkly pigmented people of varying ancestries still

occupy the periphery of society. The negative effects of dark skin pigmentation on health and socioeconomic status are magnified by physical marginalization, by lack of access to better food, education, and health care, and by stress resulting from persistent discrimination.

We understand how skin color evolved, how it is perceived, how it came to be judged, how it came to be associated with other traits in race categories, and how judgments about it have come to be rigid, collectively reinforced, and spread through time and space. We also know from ancient and recent history that the suffering caused by color-based discrimination has cost millions of lives and, for many, is still acute. The diminishing of a human being on the basis of skin color lays bare the worst aspects of our visual orientation, suggestibility, imitativeness, and status consciousness.

Motivation is critical to the elimination of color-based discrimination. The bodies of understanding we now have about skin color need to be matched by the will to change. This is a process in which no one is a spectator: we are all participants.

PLATE 1. The thirty-six Von Luschan color tiles for assessing the color of unexposed skin. The tiles provided the standards for recording skin color until the introduction of reflectometry in the mid-twentieth century. © 2011 President and Fellows of Harvard, Peabody Museum No. 2005.1.168.

PLATE 2. Alexa Wright, *Skin: Maxine*. Vitiligo is caused by cessation of melanin production in patches of skin. People affected by vitiligo sometimes suffer psychological discomfort because of their appearance, and support networks help affected people to cope. Reproduced courtesy of the artist.

PLATE 3. This Khoe-San woman and her baby from South Africa have moderately pigmented skin capable of tanning. Their skin is typical of people who have evolved in the middle latitudes under seasonally strong UVR. Photo courtesy of Edward S. Ross.

PLATE 4. The contrast in skin hue between men and women is emphasized in these highly stylized masks used in Japanese Noh theater. Photos courtesy of T. Inoue, Inoue Corporation, www.nohmask21.com.

PLATE 5. Muslim women in Afghanistan wearing traditional burqas cannot produce vitamin D in their skin even under the sunniest conditions. Black wool prevents nearly 99 percent of UVB from reaching the skin. Photo courtesy of Edward S. Ross.

PLATE 6. Wall of the tomb of Sebekhotep in Thebes (Eighteenth Dynasty, ca. 1400 BCE). Several men, probably Nubians, were depicted with black skin by Egyptian artists. Photo © The Trustees of the British Museum. All rights reserved.

PLATE 7. Jan Mostaert, *Portrait of an African Man* (ca. 1520–30). Many of the Africans who arrived in Europe in late medieval and early Renaissance times became scholars and advisers. Photo courtesy of the Rijksmuseum Amsterdam.

PLATE 8. Skin tones vary according to levels of UVR and are darker near the equator and lighter toward the poles. The gradient is more obvious in the Old World and less so in the New World, where people have lived for only about 10,000 to 15,000 years. Illustration © Mauricio Antón 2011.

PLATE 9. Mattel's Malibu Barbie was marketed to girls in the early 1970s, before the dangers of suntanning were fully appreciated. The glamor, sex appeal, and studied leisure associated with a tan and with tanned celebrities contribute to the continued popularity of the tanned look today. © 2011 Mattel, Inc. All rights reserved.

Rondilla and Spickard 2007.

17. See Glenn 2008; Thompson and Keith 2004.

14. DESIRING DARKNESS

1. The history of sun exposure in literature and art is briefly reviewed in Giacomoni 2001.

2. A similar observation was first made by the anthropologist Marvin Harris, whose research on attitudes toward tanning is summarized and quoted in Kerry Segrave's excellent book *Suntanning in 20th Century America* (2005). Segrave's book provides a thorough and provocative review of attitudes toward tanning and the development of recreational tanning as a pastime and industry.

3. On the decline of celebrity tanning, see Jablonski 2010. Thomas Rajakumar and Stephen Thomas have observed that the promotion of tanning followed the growth of heliotherapy for rickets and tuberculosis. On the changing perceptions of suntanning, see Randle 1997; Rajakumar and Thomas 2005.

4. Kaur et al. 2006. For a good recent review of the literature on tanning and physiological dependence, see Nolan and Feldman 2009. The behavioral reinforcement of tanning behavior has been studied extensively by Smita Banerjee and colleagues (2009). High-risk UVR tanning at tanning parlors appears to be particularly heavily influenced by peer pressure.

5. Mosher and Danoff-Burg 2010. See also Kaur et al. 2006; Bagdasarov et al. 2008; Banerjee et al. 2009; Nolan and Feldman 2009.

6. A good review of the effects of UVR on "Asian skin" is provided in Chung 2001.

7. The statistics on the tanning industry from 2010 come from Zwolack 2010. Katherine Hoerster and colleagues concluded that the association between a lower UV index and higher facility density "may be due to residents' desires to seek warmth, tanned skin, or both when natural sunlight is less available" (Hoerster et al. 2009, 3).

8. The "optimistic bias effect" comprises the dual perceptions that negative events are more likely to affect other people than oneself and that positive events are more likely to happen to oneself than to others. The effect, first described by Neil Weinstein in 1980, has been shown by Arthur Miller and colleagues (among others) to affect perception of risk of skin cancer from UVR exposure. See Weinstein 1980; Miller et al. 1990.

9. These titles are from Fleischer and Fleischer 1992; McPhail 1997; and Amonette 1994.

10. Use of chemical sunscreens with higher SPF values is associated with longer periods of UVR exposure among intentional tanners. Longer exposures to UVR, even with high-SPF sunscreen, are associated with more UVA penetration into the skin and elevated melanoma risk (Autier 2009).

11. Robinson et al. 2008.

12. See Kourosh, Keith, and Horton 2010; Nolan and Feldman 2009.

13. For more details about the chemistry and action of DHA, see Monfrecola and Prizio 2001.

14. On the fallacious claims of "controlled" and safe tanning being circulated to teenagers by the indoor tanning industry, see Balk and Geller 2008.

15. For more information about celebrity tanning and the "Go with Your Own Glow" campaign, see Jablonski 2010 and the Skin Cancer Foundation website, www.skincancer.org/healthy-lifestyle/go-with-your-own-glow .

16. Satherley 2011.

15. LIVING IN COLOR

1. See Williams and Eberhardt 2008. On the effects of race on differential access to the goods of society, see Ossorio and Duster 2005.

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