STEVE OLSON

Journalist Steve Olson, who holds a B.S. in physics from Yale University, has reported for the Atlantic, Science, and Scientific American and has published multiple books, including Mapping Human History: Genes, Race, and Our Common Origins (2002), which was a finalist for the National Book Award, and Count Down (2004), about teens at the International Mathematical Olympiad.

In Mapping Human History, the source of the following selection, Olson studies the path of our species through genes and continents, tracking all of humanity back to a small group that lived in eastern Africa, debunking racial myths along the way. Regardless of what appear to be differences among us, suggests Olson, biologically we are all basically the same. Our group origins and differences, which were superficial to begin with, lose importance as time goes by.

In “The End of Race: Hawaii and the Mixing of Peoples,” Olson considers centuries of intermarriage between native and nonnative races in the Hawaiian islands. Although this extensive “mixing of peoples” has led some to propose Hawaii as an example of interracial harmony, Olson acknowledges that such claims are not entirely true. Though the majority of those born and raised in Hawaii come from a complex racial and ethnic makeup, social, political, and historical influences have contributed to deep cultural divides among the various island populations. Now, in the aftermath of European colonization, the preservation of Hawaiian culture and the definition of what it means to be a native Hawaiian are pressing questions with no easy genetic or biological answers. Thus Olson ultimately questions whether racial and cultural identity is rooted in biology or affiliation. The “end of race” is, perhaps, no end at all.

What defines race? And given how complicated such a definition must inevitably be, how can we end racism and promote racial harmony?

TAGS: race, integration, research, diversity, bioethics, diplomacy, community

Questions for Critical Reading

1. What is a “community of descent”? Develop a definition by reading Olson’s text to locate quotations that define the concept. Offer, too, an example of a community of descent from your own experience.
2. As you read, ask yourself how Olson defines race. Create a definition and support it using quotations from Olson's essay. To do so, you will need to read his essay critically, paying close attention to what Olson has to say about the concept of race.

3. If race no longer has a biological basis, as Olson claims, why do ethnicities continue to function in society? Use Olson's text to propose reasons why race persists.

The End of Race: Hawaii and the Mixing of Peoples

He loved everything, he was full of joyous love toward everything that he saw. And it seemed to him that was just why he was previously so ill — because he could love nothing and nobody.

— HERMANN HESSE, Siddhartha

On the morning of November 26, 1778, the 100-foot-long, three-masted ship Resolution, captained by the fifty-year-old Englishman James Cook, sailed into view off the northeast coast of the Hawaiian island of Maui. The island's Polynesian inhabitants had never seen a European sailing ship before. The sight of the Resolution just beyond the fierce windward surf must have looked as strange to them as a spaceship from another planet. Yet they responded without hesitation. They boarded canoes and paddled to the ship. From atop the rolling swells they offered the sailors food, water, and, in the case of the women, themselves.

One can easily imagine the contrast: the European sailors — gaunt, dirty, many bearing the unmistakable signs of venereal disease — and the Polynesians, a people who abided by strict codes of personal hygiene, who washed every day and plucked the hair from their faces and underarms, whose women had bodies “moulded into the utmost perfection,” in the words of one early admirer. At first Cook forbade his men to bring the women on board the ship “to prevent as much as possible the communicating [of the] fatal disease [gonorrhea] to a set of innocent people.” In the weeks and months to come, as the Resolution lingered offshore, Cook was far less resolute. Toward the end of 1779, the first of what are today called hapa haoles — half European, half non-European — were born on the island of Maui.

The nineteenth-century stereotype of the South Pacific as a sexual paradise owes as much to the feverish imaginations of repressed Europeans as to the actions of the Polynesians. The young women who swam out to the ships in Hawaii, Tahiti, and other South Pacific islands were from the lower classes, not from the royalty, which carefully guarded its legitimacy. Many were training to be dancers in religious festivals. They would rise in status by exchanging their sexual favors for a tool, a piece of cloth, or an iron nail.

The Polynesians paid dearly for their openness. At least 300,000 people, and possibly as many as 800,000, lived on the Hawaiian islands when Captain Cook first sighted them (today the total population of the state is about 1.2 million). Over the course of the next century, diseases introduced by Europeans reduced the native population to fewer than 50,000. By the time the painter Paul Gauguin journeyed to the Pacific in
1891, the innocence that Europeans had perceived among the Polynesians was gone. "The natives, having nothing, nothing at all to do, think of one thing only, drinking," he wrote. "Day by day the race vanishes, decimated by the European diseases. . . . There is so much prostitution that it does not exist. . . . One only knows a thing by its contrary, and its contrary does not exist." The women in Gauguin's paintings are beautiful yet defeated, without hope, lost in a vision of the past.

Today visitors to Maui land on a runway just downwind from the shore where Captain Cook battled the surf eleven generations ago. Once out of the airport, they encounter what is probably the most genetically mixed population in the world. To the genes of Captain Cook's sailors and the native Polynesians has been added the DNA of European missionaries, Mexican cowboys, African American soldiers, and plantation workers from throughout Asia and Europe. This intense mixing of DNA has produced a population of strikingly beautiful people. Miss Universe of 1997 and Miss America of 2001 were both from Hawaii. The former, Brook Mahealani Lee, is a classic Hawaiian blend. Her ancestors are Korean and Hawaiian, Chinese and European.

Bernie Adair—who was selling candles at a swap meet in Kahului, Maui's largest town, when I met her—told me that her family's history was typical. Adair, whose ancestors came to Hawaii from the Philippines, married a Portuguese man in the 1960s. In the 1980s their daughter Marlene married a man of mixed Hawaiian, Chinese, and Portuguese descent. Adair's granddaughter Carly, peeking shyly at me from under a folding table, therefore embodies four different ethnicities. "These children have grandparents with so many different nationalities you can't tell what they are," Adair said.

Almost half the people who live in Hawaii today are of "mixed" ancestry. What it means to be mixed is not at all obvious genetically, but for official purposes it means that a person's ancestors fall into more than one of the four "racial" categories identified on U.S. census forms: black, white, Native American, and Asian or Pacific Islander. Intermarriage is a cumulative process, so once an individual of mixed ancestry is born, all of that person's descendants also will be mixed. As intermarriage continues in Hawaii—and already almost half of all marriages are between couples of different or mixed ethnicities—the number of people who will be able to call themselves pure Japanese, or pure Hawaiian, or pure white (haole in Hawaiian), will steadily decline.

Hawaii's high rates of intermarriage have fascinated academics for decades. The University of Hawaii sociologist Romanzo Adams wrote an article titled "Hawai'i as a Racial Melting Pot" in 1926, and many scholars since then have extolled Hawaii as a model of ethnic and racial harmony. The researchers have always been a bit vague about the reasons for all this intermarriage; explanations have ranged from the benign climate to the "aloha spirit" of the Native Hawaiians. But their lack of analytic rigor hasn't damped their enthusiasm. One of the goals of the former Center for Research on Ethnic Relations at the University of Hawaii was "to determine why ethnic harmony exists in Hawaii" and "to export principles of ethnic harmony to the mainland and the world."

The rest of the United States has a smaller percentage of mixed marriages than does Hawaii. But given recent trends, one might wonder if the country as a whole is headed down a road Hawaii took long ago. According to the 2000 census, one in
twenty children under the age of eighteen in the United States is mixed, in that their parents fall into more than one racial category. Between the 1990 and 2000 censuses, the number of interracial couples quadrupled. This number—about 1.5 million of 55 million married couples—is not yet high, but because of kinship ties, American families are already much more mixed than they look. Demographer Joshua Goldstein of Princeton University has calculated that about 20 percent of Americans are already in extended families with someone from a different racial group—that is, they or their parents, uncles and aunts, siblings, or children have married someone classified as a member of a different race.

The rapid growth of interracial marriages in the United States and elsewhere marks a new phase in the genetic history of humanity. Since the appearance of modern humans in Africa more than 100,000 years ago, human groups have differentiated in appearance as they have expanded across the globe and have undergone some measure of reproductive isolation. This differentiation has always been limited by the recentness of our common ancestry and by the powerful tendency of groups to mix over time. Still, many human populations have remained sufficiently separate to develop and retain the distinctive physical characteristics we recognize today.

In Hawaii this process is occurring in reverse. It’s as if a videotape of our species’ history were being played backward at a fantastically rapid speed. Physical distinctions that took thousands of generations to produce are being wiped clean with a few generations of intermarriage.

The vision of the future conjured up by intermarriage in Hawaii can be seductive. When everyone is marrying everyone else, when the ethnic affiliation of most people can no longer be ascertained at a glance, one imagines that ethnic and racial tensions would diminish. But spending some time in Hawaii shows that the future will not be that simple. Despite the high rate of intermarriage here, ethnic and racial tensions haven’t really disappeared. They have changed into something else, something less threatening, perhaps, but still divisive. Hawaii may well be a harbinger of a racially mixed future. But it won’t be the future many people expect.

Many of the harshest conflicts in the world today are between people who are physically indistinguishable. If someone took a roomful of Palestinians and Israelis from the Middle East, or of Serbs and Albanians from the Balkans, or of Catholics and Protestants from Ireland, or of Muslims and Hindus from northern India, or of Dayaks and Madurese from Indonesia, gave them all identical outfits and haircuts, and forbade them to speak or gesture, no one could distinguish the members of the other group—at least not to the point of being willing to shoot them. The antagonists in these conflicts have different ethnicities, but they have been so closely linked biologically throughout history that they have not developed marked physical differences.

Yet one of the most perverse dimensions of ethnic thinking is the “racialization” of culture—the tendency to think of another people as not just culturally but genetically distinct. In the Yugoslavian war, the Croats caricatured their Serbian opponents as tall and blond, while the Serbs disparaged the darker hair and skin of the Croats—even though these traits are thoroughly intermixed between the two groups. During World War II the countries of Europe fiercely stereotyped the physical attributes of their enemies, despite a history of intermarriage and migration that has scrambled physical
characteristics throughout the continent. In Africa the warring Tutsis and Hutus often call attention to the physical differences of their antagonists, but most observers have trouble distinguishing individual members of the two groups solely on the basis of appearance.

The flip side of this biological stereotyping is the elevation of one's own ancestry. The Nazis were the most notorious believers in the purity of their past, but many other groups have similar beliefs. They proclaim themselves to be descended from ancient tribes of noble warriors, or from prominent families in the distant past, or even from famous individuals.

Genetics research has revealed the flaw inherent in any such belief. Every group is a mixture of many previous groups, a fleeting collection of genetic variants drawn from a shared genetic legacy. The Polynesian colonizers of the Hawaiian archipelago are a good example. In 1795 the German anatomist J. F. Blumenbach proposed that the "Malays" — a collection of peoples, including the Polynesians, from southeastern Asia and Oceania — were one of the five races of humanity, in addition to Africans, Caucasians, Mongoloids, and Native Americans. But all of these groups (to the extent that they can be defined) are genetic composites of previous groups. In the case of the Polynesians, this mixing was part of the spread of humans into the Pacific. The last major part of the world to be occupied by humans was Remote Oceania, the widely separated islands scattered in a broad crescent from Hawaii to New Zealand. Before that, humans...
had been living only in Near Oceania, which includes Australia, Papua New Guinea, and the Bismarck Archipelago. The humans who settled these regions were adept at short ocean crossings, but they never developed the kinds of boats or navigation skills needed to sail hundreds of miles to Fiji, Samoa, and beyond.

Then, about 6,000 years ago, rice and millet agriculture made the leap across the Formosa Strait from the mainland of southeastern Asia to Taiwan. From there, agriculture began to spread, island by island, to the south and southeast. With it came two important cultural innovations. The first was the Austronesian language family, which eventually spread halfway around the world, from Madagascar to Easter Island. The second was a suite of new technologies—pottery, woodworking implements, and eventually the outrigger canoe* and ways of using the stars to navigate across large expanses of open water. Archaeological evidence shows that people first reached the previously uninhabited island of Fiji about 3,000 years ago. They sailed to Easter Island, their farthest point east, in about AD 300 and to New Zealand, their farthest point south, in about 800.

One hypothesis, known as the express-train model of Polynesian origins, claims that both the knowledge of agriculture and Austronesian languages were carried into the Pacific by people descended almost exclusively from the first farmers who set sail from Taiwan. But genetic studies have revealed a much more complex picture. Mitochondrial and Y-chromosome haplotypes among today’s Polynesians show that there was extensive mixing of peoples in Near Oceania, which eventually produced the groups that set sail for the remote islands. Though many of the mitochondrial haplotypes and Y chromosomes of the Polynesians do seem to have come from the mainland of southeastern Asia and Taiwan, others originated in New Guinea and its nearby islands—a geographic region known as Melanesia (named for the generally dark skin of its inhabitants). Geneticists Manfred Kayser and Mark Stoneking of the Max Planck Institute for Evolutionary Anthropology in Leipzig have dubbed the resulting synthesis the “slow-boat model.” According to this model, today’s Polynesians can trace their ancestry both to the Austronesian speakers who moved out of southeastern Asia and to the people who already occupied Melanesia.

The Polynesians first reached the Hawaiian islands around AD 400, probably in a migration from the Marquesas islands. A subsequent wave of people migrated to Hawaii from Tahiti between the twelfth and the fourteenth century. Then the islands saw no more newcomers until Captain Cook’s arrival four centuries later.

The discovery of Hawaii by Europeans did not result in an immediate influx of colonists. The early decades of the nineteenth century brought just a trickle of settlers to the islands—washed-up sailors, retired captains, British and Russian traders, missionaries. Large-scale migration began only after the first sugar plantations were established around the middle of the century. In 1852, three hundred Chinese men arrived to work the plantations. Over the next century nearly half a million more workers followed. They came from China, Japan, Korea, Puerto Rico, Spain, Poland, Austria, Germany.

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* Outrigger canoe: Canoe with a side floatation unit for increased stability [Ed.].
1 Mitochondrial and Y-chromosome haplotypes: Genetic information that can be used to trace ancestry through the mother’s and father’s lineage [Ed.].
Some of these groups have long since disappeared, blending into the genetic background. Others still have a significant ethnic presence on the islands.

A few miles from the Honolulu airport is a vivid reminder of those times. Hawaii's Plantation Village is one of the few tourist attractions designed as much for the locals as for mainlanders. It meticulously recreates a camp town of the type that once dotted the islands, housing the workers who toiled each day in the sugar and pineapple fields. Each house along the main avenue reflects the ethnicity of the workers who lived there: A large bread oven sits next to the Portuguese house, rice cookers dominate the kitchen of the Chinese house, crucifixes adorn the walls of the Puerto Rican house. A Japanese shrine is a few doors away from the Chinese society building. Down the hill by the taro fields is a dohyo, a sumo ring, where the workers wrestled every Sunday afternoon.

Mike Hama showed me around the day I was there. The descendant of Japanese, German, Hawaiian, and Irish grandparents, Hama grew up on a plantation camp in the 1940s. "Kids of all different nationalities played together in these camps," he told me. "We didn't know we were different." They communicated using a pidgin that combined words from many languages. The German kids taught the other kids to polka in the camp social halls. The Japanese kids taught their friends sumo wrestling. When the Japanese emperor visited Hawaii after World War II, according to a widely told if hard-to-verify story, he was so impressed to see wrestlers of all different nationalities in the dohyo that when he returned to Japan he opened the country's sumo rings to foreigners.

When Hama was eighteen, he joined the military and was stationed in California. "That was a real awakening for me," he recalls. "For the first time I saw the bigotry that was going on outside Hawaii." He moved back to Hawaii as soon as he could and married a woman of mixed ancestry. His four daughters think of themselves as nothing other than local Hawaiians.

The camp towns disappeared decades ago in Hawaii, yet they have left a remarkable legacy. Large-scale segregation in housing remains rare on the islands. People of all ethnic backgrounds live side by side, just as they did in the camp towns. The only people who live in ghettos are the soldiers on military bases and wealthy haoles who wall themselves off in gated communities. Because neighborhoods are integrated in Hawaii, so are most of the schools. Children of different ethnicities continue to grow up together and marry, just as they did in the camps.

Integrated neighborhoods, integrated schools, high rates of intermarriage—the islands sound as if they should be a racial paradise. But there's actually a fair amount of prejudice here. It pops up in novels, politics, the spiels of standup comics. And it's especially prominent in everyday conversation—"talk stink" is the pidgin term for disrespecting another group.

Some of the prejudice is directed toward haoles, who continue to occupy many of the positions of social and economic prominence on the islands (though their days as plantation overlords are long gone). Nonwhites label haoles as cold, self-serving, arrogant, meddling, loud, and even that old stereotype—smelly (because, it is held, smell...
they still do not bathe every day). White kids say they’ll get beat up if they venture onto certain nonwhite beaches. Occasionally a rumor sweeps through a school about an upcoming “Kill a Haole” day. The rumors are a joke meant to shock the prevailing sensibilities. But one would not expect such a joke where racial tensions are low.

Other groups come in for similarly rough treatment. The Japanese are derided as clannish and power-hungry, the Filipinos as ignorant and underhanded, the Hawaiians as fat, lazy, and fun-loving. And, as is true of stereotypes everywhere, the objects of them have a tendency to reinforce them, either by too vigorously denying or too easily repeating them.

“Interruption may indicate tolerance,” says Jonathan Okamura, an anthropologist at the University of Hawaii, “but it doesn’t mean we have an egalitarian society on a larger scale.” Though he calls his viewpoint a “minority position,” Okamura holds that racial and ethnic prejudice is deeply ingrained in the institutional structures of everyday life in Hawaii. For example, the integration of the public schools is deceptive, he says. Well-off haoles, Chinese, and Japanese send their children to private schools, and the public schools are underfunded. “We’ve created a two-tiered system that makes inequality increasingly worse rather than better,” says Okamura. Meanwhile the rapid growth of the tourism industry in Hawaii has shut off many traditional routes to economic betterment. Tourism produces mostly low-paying jobs in sales, service, and construction, Okamura points out, so people have few opportunities to move up career ladders.

Of course, talented and lucky individuals still get ahead. “Students with parents who didn’t go to college come to the university and do well—that happens all the time,” Okamura says. “But it doesn’t happen enough to advance socioeconomically disadvantaged groups in society.”

Several ethnic groups occupy the lower end of the socioeconomic scale, but one in particular stands out: the people descended from the island’s original inhabitants. Native Hawaiians have the lowest incomes and highest unemployment rates of any ethnic group. They have the most health problems and the shortest life expectancy. They are the least likely to go to college and the most likely to be incarcerated.

Then again, applying statistics like these to a group as large and diverse as Native Hawaiians is inevitably misleading. Individuals with some Hawaiian ancestry make up a fifth of the population in Hawaii. Some are successful; some are not. Some are consumed by native issues; others pay them no mind. And Native Hawaiians are much less marginalized in Hawaii than are, for example, Native Americans in the rest of the United States. Hawaiian words, names, and outlooks have seeped into everyday life on the islands, producing a cultural amalgam that is one of the state’s distinct attractions.

Native Hawaiians should not be seen as simply another ethnic group, the leaders of their community point out. Other cultures have roots elsewhere; people of Japanese, German, or Samoan ancestry can draw from the traditions of an ancestral homeland to sustain an ethnic heritage. If the culture of the Native Hawaiians disappears, it will be gone forever. Greater recognition of the value and fragility of this culture has led to a resurgence of interest in the Hawaiian past. Schools with Hawaiian language immersion programs have sprung up around the islands to supplement the English that children speak at home. Traditional forms of Hawaiian dance, music, canoeing, and religion all have undergone revivals.
This Hawaiian Renaissance also has had a political dimension. For the past several decades a sovereignty movement has been building among Native Hawaiians that seeks some measure of political autonomy and control over the lands that the U.S. government seized from the Hawaiian monarchy at the end of the nineteenth century. Reflecting the diversity of the native population, several sovereignty organizations have carried out a sometimes unseemly struggle over strategies and goals. One radical faction advocates the complete independence of the islands from the United States. More moderate groups have called for the establishment of a Native Hawaiian nation modeled on the Indian tribes on the mainland. Native Hawaiians would have their own government, but it would operate within existing federal and state frameworks, and its citizens would remain Americans.

Native Hawaiian sovereignty faces many hurdles, and it is premature to harp on exactly how it would work. But whenever the topic comes up in discussion, a question quickly surfaces: Exactly who is a Native Hawaiian? "Pure" Hawaiians with no non-Hawaiian ancestors probably number just a few thousand. Many Native Hawaiians undoubtedly have a preponderance of Hawaiian ancestors, but no clear line separates natives from nonnatives. Some people who call themselves Native Hawaiians probably have little DNA from Polynesian ancestors.

Past legislation has waffled on this issue. Some laws define Native Hawaiians as people who can trace at least half their ancestry to people living in Hawaii before the arrival of Captain Cook. Others define as Hawaiian anyone who has even a single precontact Hawaiian ancestor. These distinctions are highly contentious for political and economic as well as cultural reasons. Many state laws restrict housing subsidies, scholarships, economic development grants, and other benefits specifically to Native Hawaiians.

As the study of genetics and history has progressed, an obvious idea has arisen. Maybe science could resolve the issue. Maybe a genetic marker could be found that occurs only in people descended from the aboriginal inhabitants of Hawaii. Then anyone with that marker could be considered a Native Hawaiian.

No one is better qualified to judge this idea than Rebecca Cann, a professor of genetics at the University of Hawaii. Cann was the young graduate student at the University of California at Berkeley who, with Mark Stoneking, did much of the work that led to the unveiling of mitochondrial Eve.* She haunted hospital delivery rooms to obtain mitochondrion-rich placentas, which at that time was the only way to get enough mitochondrial DNA to sequence. She ran gels and compared nucleotides. Her faculty adviser, Allan Wilson, landed mitochondrial Eve on the cover of Newsweek, but Cann did the footwork.

She moved to Hawaii even before mitochondrial Eve made headlines, responding to an ad in Science magazine for a job. She's been here ever since, though her flat

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* Mitochondrial Eve: A term in genetics for the maternal ancestor of every human now alive. This woman is estimated to have lived about 200,000 years ago in East Africa [Ed.].
American accent still betrays a childhood spent in Iowa. She met me at the door of her office, in the foothills above Honolulu, dressed in sandals and a patterned Hawaiian dress. “I think we correctly anticipated many of the applications and potential problems of this research,” she said, “right down to people wanting to clone Elvis from a handkerchief he’d used to wipe his brow. What we didn’t understand was the degree to which religious and cultural beliefs would dictate attitudes toward genetic materials. In Hawaii, for instance, there’s a very strong belief in mana, in the power of the spirit, which is contained in the remains of a person’s ancestors. The absolute disgust that many people have toward the desecration of a grave—that was a cultural eye-opener for me.”

Despite the occasional cultural difficulties, Cann has continued her study of human genetics in Hawaii and has played an important role in piecing together the prehistory of the Pacific. By comparing the mitochondrial DNA sequences of people on various islands, she has traced the gradual eastward spread of modern humans from southeastern Asia and Melanesia. She has discovered that men and women had different migration patterns into the Pacific and has even detected tantalizing evidence, still unconfirmed, of genetic contacts between Pacific Islanders and South Americans. “I’m convinced that our history is written in our DNA,” she told me.

Yet she cautioned against using genetics to determine ethnicity. “I get people coming up to me all the time and saying, ‘Can you prove that I’m a Hawaiian?’” She can’t, she said, at least not with a high degree of certainty. A given individual might have a mitochondrial haplotype that is more common among Native Hawaiians. But the ancestors of the aboriginal Hawaiians also gave rise to other Pacific populations, so a mitochondrial sequence characteristic of Native Hawaiians could have come from a Samoan or Filipino ancestor.

Also, a person’s mitochondrial DNA is not necessarily an accurate indication of ancestry. The only way for a person to have mitochondrial DNA from a woman who lived in Hawaii before the arrival of Captain Cook is for that person to have an unbroken line of grandmothers dating back to that woman. But because groups have mixed so much in Hawaii, mitochondrial lineages have become thoroughly tangled. People who think of themselves as Native Hawaiian could easily have had non-Hawaiian female ancestors sometime in the past eleven generations, which would have given them mitochondrial DNA from another part of the world.

These genetic exchanges are also common elsewhere in the world, even in populations that think of themselves as less mixed. Most native Europeans, for example, have mitochondrial DNA characteristic of that part of the world. But some have mitochondrial DNA from elsewhere—southern Africa, or eastern Asia, or even Polynesia—brought to Europe over the millennia by female immigrants. The British matron who has a mitochondrial haplotype found most often in southern Africans is not an African, just as the Native Hawaiian with mitochondrial DNA from a German great-great-grandmother does not automatically become German.

This confusion of genetic and cultural identities becomes even greater with the Y chromosome, given the ease with which that chromosome can insert itself into a genealogy. Most of the early migrants to Hawaii, for example, were males, especially the plantation workers. Those males mated with native women more often than native men mated with immigrant women, so nonnative Y chromosomes are now more
common in mixed populations than nonnative mitochondrial DNA. In some populations in South America, virtually all the Y chromosomes are from Europe and all the mitochondrial DNA is from indigenous groups.

The mixing of genes can cause great consternation, but it is the inevitable consequence of our genetic history. Several years ago a geneticist in Washington, D.C., began offering to identify the homelands of the mitochondrial DNA and Y chromosomes of African Americans. The service foundered for several reasons, but one was that 30 percent of the Y chromosomes in African American males come from European ancestors.

Within a few years geneticists will be able to use DNA sequences from all the chromosomes to trace ancestry. But these histories will be just as convoluted as those of mitochondrial DNA and the Y. Granted, geneticists will be able to make statistical assessments. They will be able to say, for instance, that a given person has such and such a probability of descent from a Native Hawaiian population, and in some cases the probability will be very high. But probabilities don’t convey the cold, hard certainties that people want in their genealogies.

Beyond the purely genetic considerations are the social ones. When children are adopted from one group into another, they become a member of that group socially, yet their haplotypes and those of their descendants can differ from the group norm. Rape is another way in which the genetic variants of groups mix. And sometimes people from one group make a conscious decision to join another and are gladly accepted, despite their different genetic histories.

“I get nervous when people start talking about using genetic markers to prove ethnicity,” Cann told me. “I don’t believe that biology is destiny. Allowing yourself to be defined personally by whatever your DNA sequence is, that’s insane. But that’s exactly what some people are going to be tempted to do.”

When geneticists look at our DNA, they do not see a world of rigidly divided groups each going its own way. They see something much more fluid and ambiguous — something more like the social structures that have emerged in Hawaii as intermarriage has accelerated.

The most remarkable aspect of ethnicity in Hawaii is its loose relation to biology. Many people have considerable latitude in choosing their ethnic affiliations. Those of mixed ancestry can associate with the ethnicity of a parent, a grandparent, or a more distant ancestor. They can partition their ethnic affiliations: They can be Chinese with their Chinese relatives; Native Hawaiian with their native kin; and just plain local with their buddies. The community of descent that a person associates with has become more like a professional or religious affiliation, a connection over which a person has some measure of control.

People whose ancestors are from a single ethnic group have fewer options, but they, too, can partake of at least some of Hawaii’s ethnic flexibility. Young whites, for example, sometimes try to pass themselves off as mixed by maintaining an especially dark tan. Among many young people, dating someone from a different ethnic group is a social asset rather than a liability, in part because of the doors it opens to other communities. Many prospective students at the University of Hawaii simply mark “mixed” in describing their ethnicity on application forms, even if both parents have the same
Hawaii’s high rates of intermarriage also contribute greatly to the islands’ ethnic flux. Ethnicity is not defined just by who one’s ancestors were. It also is defined prospectively—by the group into which one is expected to marry. For most young people in Hawaii, the pool of marriageable partners encompasses the entire population. Relations among groups are inevitably less fractious when their members view each other as potential mates.

Of course, ethnic and even “racial” groups still exist in Hawaii, and they will for a long time. Despite the rapid growth of intermarriage in Hawaii and elsewhere, the mixing of peoples takes generations, not a few years or even decades. Most people around the world still choose marriage partners who would be classified as members of the same “race.” In many parts of the world—the American Midwest, China, Iceland—few other options are available. Five hundred years from now, unless human societies undergo drastic changes, Asians, Africans, and Europeans still will be physically distinguishable.

But the social effects of intermarriage are much more immediate than are the biological effects. Socially, intermarriage can quickly undermine the idea that culture has biological roots. When a substantial number of mixed individuals demonstrate, by their very existence, that choices are possible, that biology is not destiny, the barriers between groups become more permeable. Ethnicity in Hawaii, for example, seems far less stark and categorical than it does in the rest of the United States. The people of Hawaii recognize overlaps and exceptions. They are more willing to accept the haole who claims to have non-European ancestors or the Native Hawaiian who affiliates with Filipinos. It’s true that people talk about the differences among groups all the time, but even talking about these differences, rather than rigidly ignoring them, makes them seem less daunting. Expressions of social prejudice in Hawaii are more like a form of social banter, like a husband and wife picking at each other’s faults.

The logical endpoint of this perspective is a world in which people are free to choose their ethnicity regardless of their ancestry. Ethnicity is not yet entirely voluntary in Hawaii, but in many respects the islands are headed in that direction. State law, for example, is gradually coming to define a Native Hawaiian as anyone with a single Hawaiian ancestor. But at that point ethnicity becomes untethered from biology—it is instead a cultural, political, or historical distinction. People are no longer who they say they are because of some mysterious biological essence. They have chosen the group with which they want to affiliate.

Genetically, this view of ethnicity makes perfect sense. Our DNA is too tightly interconnected to use biology to justify what are essentially social distinctions. Our preferences, character, and abilities are not determined by the biological history of our ancestors. They depend on our individual attributes, experiences, and choices. As this inescapable conclusion becomes more widely held, our genetic histories inevitably will become less and less important. When we look at another person, we won’t think Asian, black, or white. We’ll just think: person.

In his novel *Siddhartha*, Hermann Hesse tells the story of a young man in ancient India, a disciple of an inspired teacher, who sets out to find the reality beneath the world of
appearance. After years of study and wandering, Siddhartha becomes a ferryman, learning from his predecessor how to listen to the voices in the passing river. One day a childhood friend named Govinda comes to the river. Siddhartha and Govinda have a long conversation about the interdependence of illusion and truth, about the existence of the past and future in the present, about the need not just to think about the world but to love it. Finally Govinda asks Siddhartha how he has achieved such peace in his life. Siddhartha replies, “Kiss me on the forehead, Govinda.” Govinda is surprised by the request, but out of respect for his friend he complies. When he touches Siddhartha’s forehead with his lips, he has a wondrous vision:

He no longer saw the face of his friend Siddhartha. Instead he saw other faces, many faces, a long series, a continuous stream of faces—hundreds, thousands, which all came and disappeared and yet all seemed to be there at the same time, which all continually changed and renewed themselves and which were all yet Siddhartha. . . . He saw the face of a newly born child, red and full of wrinkles, ready to cry. He saw the face of a murderer. . . . He saw the naked bodies of men and women in the postures and transports of passionate love. . . . Each one was mortal, a passionate, painful example of all that is transitory. Yet none of them died, they only changed, were always reborn, continually had a new face; only time stood between one face and another.

I began this book [Mapping Human History] by calling attention to the different appearances of human beings. I conclude it now by calling attention to the opposite. Throughout human history, groups have wondered how they are related to one another. The study of genetics has now revealed that we all are linked: the Bushmen hunting antelope, the mixed-race people of South Africa, the African Americans descended from slaves, the Samaritans on their mountain stronghold, the Jewish populations scattered around the world, the Han Chinese a billion strong, the descendants of European settlers who colonized the New World, the Native Hawaiians who look to a cherished past. We are members of a single human family, the products of genetic necessity and chance, borne ceaselessly into an unknown future.

Exploring Context

1. Read the U.S. Census Bureau’s explanation of the racial categories used in the census taken every ten years at census.gov/population/race. How do these categories relate to Olson’s argument? Relate your response to your work on the persistence of race from Question 3 of Questions for Critical Reading.

2. Visit Hawaii’s official state government website at hawaii.gov and then visit the official Hawaii tourism website at gohawaii.com. How is race represented on these sites? What races do you see in the images? Is the representation of race the same for residents and for tourists? Why might there be differences? Use the definition of race you developed in Question 2 of Questions for Critical Reading to support your position.

3. One place that race persists in Hawaii, according to Olson, is in schools. Locate websites for some schools in Hawaii. Do you find evidence to support Olson’s argument or to complicate it?