24. During the 1920s, most advocates of management, Frederick Taylor’s method for maximizing workers’ productivity by rigorously routintizing their jobs, opposed the five-day workweek. Although scientific managers conceded that reducing hours might provide an incentive to workers, in practice they more often used pay differentials to encourage higher productivity. Those reformers who wished to embrace both scientific management and reduced hours had to make a largely negative case, portraying the latter as an antidote to the rigors of the former.

In contrast to the scientific managers, Henry Ford claimed that shorter hours led to greater productivity and profits. However, few employers matched either Ford’s vision or his specific interest in mass marketing a product - automobiles - that required leisure for its use, and few unions succeeded in securing shorter hours through bar - gaining. At its 1928 convention, the American Federation of Labor (AFL) boasted of approximately 165000 members working five-day, forty-hour weeks. But although this represented an increase of about 75000 since 1926, about 70 percent of the total came from five extremely well-organized building trades’ unions.

1. The binary planet hypothesis - that Earth and the Moon formed simultaneously by the accretion of smaller objects - does not explain why the Moon’s iron core is so small relative to the Moon’s total volume, compared with Earth’s core relative to Earth’s total volume.According to the giant-impact hypothesis, the Moon was created during a collision between Earth and a large object about the size of Mars. Computer simulations of this impact show that both of the objects would melt in the impact and the dense core of the impactor would fall as molten rock into the liquefied iron core of Earth. The ejected matter - mantle rock that had surrounded the cores of both objects - would be almost devoid of iron. This matter would become the Moon.
2. Frederick Douglass was unquestionably the most famous African American of the nineteenth century; indeed, when he died in 1895 he was among the most distinguished public figures in the United States. In his study of Douglass’ career as a major figure in the movement to abolish slavery and as a spokesman for Black rights, Waldo Martin has provoked controversy by contending that Douglass also deserves a prominent place in the intellectual history of the United States because he exemplified so many strand of nineteenth-century thought: romanticism, idealism, individualism, liberal humanism, and an unshakable belief in progress. But this very argument provides ammunition for those who claim that most of Douglass’ ideas, being so representative of their time, are now obsolete. Douglass’ vision of the future as a melting pot in which all racial and ethnic differences would dissolve into “a composite American nationality” appears from the pluralist perspective of many present-day intellectuals to be not only utopian but even wrongheaded. Yet there is a central aspect of Douglass’ thought that seems not in the least bit dated or irrelevant to current concerns. He has no rival in the history of the nineteenth-century United States as an insistent and effective critic of the doctrine of innate racial inequality. He not only attacked racist ideas in his speeches and writings, but he offered his entire career and all his achievements as living proof that racists were wrong in their belief that one race could be inherently superior to another.

While Martin stresses Douglass’ antiracist egalitarianism, he does not adequately explain how this aspect of Douglass’ thought fits in with his espousal of the liberal Victorian attitudes that many present-day intellectuals consider to be naïve and outdated. The fact is that Douglass was attracted to these democratic-capitalist ideals of his time because they could be used to attack slavery and the doctrine of White supremacy. His favorite rhetorical strategy was to expose the hypocrisy of those who, while professing adherence to the ideals of democracy and equality of opportunity, condoned slavery and racial discrimination. It would have been strange indeed if he had not embraced liberal idealism, because it proved its worth for the cause of racial equality during the national crisis that eventually resulted in emancipation and citizenship for African Americans. These points may seem obvious, but had Martin given them more attention, his analysis might have constituted a more convincing rebuttal to those critics who dismiss Douglass’ ideology as a relic of the past. If one accepts the proposition that Douglass’ deepest commitment was to Black equality and that he used the liberal ideals of his time as weapons in the fight for that cause, then it is hard to fault him for seizing the best weapons at hand.

1. Most recent work on the history of leisure in Europe has been based on the central hypothesis of a fundamental discontinuity between preindustrial and industrial societies. According to this view, the modern idea of leisure did not exist In medieval and early modern Europe：the modern distinction between the categories of work and leisure was a productof Industrial capitalism. Preindustrial societies had festivals (together with Informal and Irregular breaks from work), while industrial societies have leisure in the form of weekends and vacations. The emergence of leisure is therefore part of the process of modernization. If this theory is correct, there is what Michel Foucault called a conceptual rupture between the two periods, and so the very idea of a history of leisure before the Industrial Revolution is an anachronism.

To reject the idea that leisure has had a continuous history from the Middle Ages to the present is not to deny that late medieval and early modern Europeans engaged in many pursuits that are now commonly considered leisure or sporting activates—jousting, hunting, tennis, card playing, travel, and so on—or that Europe in this period was dominated by a privileged class that engaged in these pursuits. What is involved in the discontinuity hypothesis is the recognition that the people of the Middle Ages and early modern Europe did not regard as belonging to a common category activities (hunting and gambling, for example) that are usually classified together today under the heading of leisure. Consider fencing: today it may be considered a “sport”, but for the gentleman of the Renaissance it was an art or science. Conversely, activities that today may be considered serious, notably warfare, were often described a pastimes.

Serious pitfalls therefore confront historians of leisure who assume continuity and who work with the modern conceptsof leisure and sport, projecting them back onto the past without asking about the meanings contemporaries gave to their activates. However, the discontinuity hypothesis can pose problems of its own. Historians holding this view attempt to avoid anachronism by means of a simple dichotomy, cutting European history into two eras, preindustrial and industrial, setting up the binary opposition between a "festival culture" and a "leisure culture”. The dichotomy remains of use insofar as it reminds us that the rite of industrial capitalism was not purely a phenomenon of economic history, but had social and cultural preconditions and consequences. The dichotomy; however, leads to distortions when it reduces great variety of medieval and early modern European ideas,assumptions, and practices to the simple formula implied by the phrase culture.

29. The painter Peter Brandon never dated his works, and their chronology isonly now beginning to take shape in the critical literature. A recent dating of a Brandon self-portrait to 1930 is surely wrong. Brandon was 63 years old in 1930, yet the painting shows a young, dark-haired man-obviously Brandon, but clearly not a man of 63.

1. This passage is adapted from material published in 2001.In 1998 scientists using the neutrino detector in Kamioka, Japan, were able to observe several thousand neutrinos—elusive, tiny subatomic particles moving at nearly the speed of light and passing through almost everything in their path. The Kamioka findings have potentially far-reaching ramifications. They strongly suggest that the neutrino hat mass, albeit an infinitesimal amount. Even a tiny mass means that neutrinos would outweigh all the universe’s visible matter, because of their vast numbers. The findings also suggest that a given neutrino does not have one stable mass or one stable identity; instead it oscillates from one identity or “flavor” (physicists’ term describing how neutrinos interact with other particles) to another. This oscillation may explain why, although the Sun is a large source of neutrinos, detectors capture far fewer solar neutrinos than thebest theory of solar physics predicts: the neutrinos may be changing to flavors undetectable by detectors. Finally, while the standard particle-physics model—which describes all matter in terms of twelve fundamental particles and four fundamental forces—does not allow for neutrinos with mass, there are theories that do. Further experiments to confirm that neutrinos have mass could help physicists determine which, if any. of these theories is correct.

Passage 28 James W. Coleman’s book on John Edgar Wideman’s literary career addresses the needs of a general, if well-read, public rather than the esoteric vanities of scholarly specialists, whom he neither ignores nor flatters. To assume the former audience was familiar with every work Wideman ever penned would have been pretentious. Instead, Coleman furnishes more than ample descriptive criticism and background information, avoiding the cryptic allusiveness that is favored by some academic critics but that discourages the undergraduate audience he likely envisioned. Unfortunately, this accent on bringing serious Wideman criticism to a broader audience often frustrates the reader who wishes that announced themes, techniques, and stylistic devices would not whisk by as quickly as world capitals on a seven-day package tour of the globe .