Mission 4: Reading workout with a scratch!

Passage II

SOCIAL SCIENCE: This passage is adapted from the article "Why Can't We All Just Relax?" by Verlyn Klinkenborg, which appeared in the magazine *Civilization* (©1997 by Capital Publishing L.P.).

The sense that leisure time has steadily diminished in recent years and is now disappearing altogether is not just an illusion, a prank of perspective. It's a fact nearly everyone feels. Work—and the time it takes to get to and from work—spills into corners of the day and night that used to belong to community and family life, to sleep, to oneself. What leisure there is comes in smaller and smaller increments and is increasingly overshadowed by the specter of economic strain and personal stress. Working hours declined throughout the first half of the 20th century, but they have been on the rise again since 1969, totaling an extra month of work per year for each "labor force participant" by the beginning of the 1990s, according to Juliet Schor, a Harvard economist and author of *The Overworked American*. Equally important, leisure is no longer folded continuously into the contours of the year in a pattern that reflects the rhythms of season and holiday. We work just as hard in winter as we do in summer, as hard by night as we do by day, as hard at home as we do at the office. Leisure time has been containerized in the weekend and the vacation, resulting in what can only be called the pressure to unwind.

What is illusory is the widely held assumption that humans have toiled miserably throughout history, only to be freed from labor by 20th-century technology. "The claim that capitalism has delivered us from excessive toil," Schor writes, "can be sustained only if we take as our point of comparison eighteenth- and nineteenth-century Europe and America—a period that witnessed what were probably the longest and most arduous work schedules in the history of humankind." In fact, she notes, ordinary people in premodern times led lives that, though not always pleasant, were often quite leisurely. Before the industrial revolution, laborers' time was not yet calibrated by the clocks of factory owners. The rhythms of work and rest were intricately patterned by a rich calendar of holidays and—on farms and in some trades—wide seasonal variation in the intensity of work. Medieval records show that even for peasants, the working year may have been as short as 120 to 150 days.

The industrial revolution completed with dramatic rapidity a process that had been going on for several centuries: the transformation of labor into a salable commodity. For this to occur, time itself had to be turned into a commodity, a means of measuring the sale of one's labor. The result was a very different, less elastic sense of what might be called the ownership of time, an ownership that employers took quite seriously and were able to measure with increasing, almost fanatical precision by the mid-18th century. But leisure was something that manual workers did not know they possessed until after they had exchanged agricultural jobs for industrial ones.

In the early 20th century, leisure began to undergo a broad social redistribution and, in fact, a shift in category. In a 1935 essay called "In Praise of Idleness," mathematician and philosopher Bertrand Russell declared that modern technology "has made it possible for leisure, within limits, to be not the prerogative of small privileged classes, but a right evenly distributed throughout the community." And yet if leisure indeed became a right, it was one that people virtually stopped fighting for during the manufacturing boom that followed World War II, when "workers" became better known as "consumers." The last significant congressional legislation pressing for reduction in the length of the workweek (to 30 hours) was scuttled by President Franklin Roosevelt after being passed by the Senate in 1933.

From a philosophical perspective, it's not hard to understand why leisure has evaporated in this country. Economically speaking, Americans are the heirs of economist Adam Smith, who viewed leisure as merely therapeutic. In *The Wealth of Nations*, he acknowledged that relaxation is a "call to nature" that follows on "great labour, either of mind or body." But in Smith's opinion, leisure, like sleep, is valuable mainly because it keeps *Homo economicus* healthy. He takes it for granted that human existence is meant to be economically productive, a principle that lies at the root of American society. When the pressure's on, Americans tend to cut back sharply on the elements of their lives that appear to be solely therapeutic. Sleep, good food, the bonds of community and family, leisure itself: These are the things that get squeezed.

Secret Word

11. The main purpose of the first paragraph in relation to the passage as a whole is to:
    - A. discuss how the typical workplace has changed over the past several centuries.
    - B. compare and contrast late-twentieth-century labor with that of several other centuries.
    - C. describe the current state of leisure time in the United States.
    - D. disprove the illusion that leisure time is declining.

12. According to the passage, all of the following are accurate characterizations of leisure in the second half of the twentieth century in the United States EXCEPT that it has:

F. been the focus of significant congressional legislation.
G. been given a lower priority than economic productivity.
H. been containerized in weekends and vacations.
J. come in smaller and smaller increments.

13. The author most likely includes the second paragraph (lines 24–42) to:

A. argue that technology, rather than capitalism, was responsible for the decline in leisure time in the premodern era.
B. contrast the labor of the eighteenth and nineteenth centuries with that of the twentieth.
C. support the claim that capitalism has increased leisure in the United States in the twentieth century.
D. provide historical evidence to undermine the idea that people labored excessively up until the twentieth century.

14. In the last paragraph, Adam Smith contrasts the need for leisure with:

F. economic priorities.
G. family bonds.
H. sleep.
J. a "call to nature."

15. As presented in the last paragraph, Adam Smith's remarks can most accurately be characterized as:

A. philosophical opinion.
B. precise medical diagnosis.
C. carefully documented findings.
D. false assumptions about U.S. society.

16. The passage suggests that the primary reason for the current state of leisure in the United States is the:

F. ending of the industrial revolution.
G. priority placed on economic productivity.
H. successful adoption of labor-saving technology.
J. reliance on vacations as a means to unwind.

17. According to the passage, the shift in thinking about the leisure of manual workers mentioned in lines 52–55 occurred when:

A. peasants became land owners.
B. farmers became factory workers.
C. employees became industrialists.
D. workers became consumers.

18. The author most likely includes the quotation from Bertrand Russell in lines 60–63 to:

F. press for congressional legislation reducing the workweek.
G. disprove the theory of the social distribution of labor.
H. praise the prerogatives of the privileged classes.
J. suggest that leisure has sometimes been considered a right.

19. Based on the passage, people's attitude after World War II toward reducing the length of the workweek can best be described as:

A. hopeful.
B. enthusiastic.
C. hostile.
D. unsupportive.

20. The author most likely uses the words *workers* and *consumers* in lines 66–67 to:

F. make a distinction between two separate groups of people.
G. suggest the need to recognize laborers' rights as consumers.
H. imply that a conceptual change in society took place after World War II.
J. highlight workers' improved and more leisurely lives following World War II.

Secret word

Secret word

Passage III

HUMANITIES: This passage is adapted from "The Man Who Wants Buildings to Love Kids" by Roger Rosenblatt, an article that appeared in *Time* magazine (©1999 by Time Inc.).

When architecture firms began to compete for a clothing-store chain's office complex in San Bruno, Calif., William McDonough saw it as a competition of ideas rather than for a contract. "Our idea," he says, "was that if a bird flew over the building, it would not know that anything had changed." If that sounds like pure eco-nut talk, try the question he puts to potential clients when he undertakes any of his architectural projects: "I ask, 'How do we love all children, all species, all time?'"

After a day of McDonough's instruction in much more than architecture, one sees that his utopianism is grounded in a unified philosophy that—in demonstrable and practical ways—is changing the design of the world. McDonough empathizes with birds because he's a rare one himself, a visionary. The three points of his abstractly designed universe (he is given to drawing incomprehensible diagrams on any available surface) reflect that people who used to be impelled to make things by the old impulses of social and economic interests now must add the environment. "But not as an ism," he cautions, not as an extreme. "What we're trying to do is balance ecology, equity and economy."

The clothing-store chain's campus, which William McDonough + Partners completed in 1997, is an anomaly of a building that looks more beautiful in life than it does in photos, and seems to expand its beauty from the inside out. The inside is essentially the outside, so when one is there, one is also somewhere else. The "facts" of the structure read like an essay on "What I Did for the Environment Last Summer": the roofs are planted with native grasses and wildflowers atop 6 in. of soil that both fools the birds and serves as a thermal and acoustical insulator.

The complex's wood floors and veneer were harvested from sustainable forests. Not a single California live oak was cut down during construction, and a stand of the ancient trees rises in a dark elegance just beyond a piazza. Huge atriums carry daylight deep into the building, paints and adhesives are low toxicity, the place is 30% more energy efficient than state law requires, and so on.

But the special power of the structure is its palpable connection to the people who work there. On the day that McDonough and I visit, 600 employees go about their tasks, yet the building feels empty. The windows bring people to the sky. "When it's a nice day," says McDonough, "why feel as if you've missed it?" Stand in practically any spot, and one can see the greenery of the outside trees, the grassy lower roof or the grasses growing in one of the two interior courtyards. Light is everywhere. It fills the vast open hallways that seem to stretch on forever under ceilings 15 ft. high. McDonough says, "People have lofty thoughts in lofty places."

A walking college lecture—he is also dean of the University of Virginia school of architecture—McDonough is a compendium of similar maxims, phrases and rules: "Honor commerce as the engine of change"; "respect diversity"; "build for abundance"; "eco-efficiency should be replaced by eco-effectiveness"; "design is the first signal of human intention"; "I want to do architecture that is timeless and mindful."

All this and much more come from a 48-year-old innocent anarchist; his language has the touch of the poet and of the bomb thrower. He thinks abstractly, making it equally fascinating and difficult to talk to him, since he turns nearly every contribution one makes to the conversation into a refinement of his theories.

He believes the world needs to be rebuilt from the bottom up, in a "next industrial revolution." That means everything from products to buildings to cities to "definitions of beauty" and constructs of the human mind. Beauty, he says, embodies function. A beautiful building that spews fumes and spreads cancer is not beautiful. "How do we love all children?" means "How can we look generations into the future if we leave behind the detritus of this designer society?" "For a strategy of change," he says, "we need a strategy of hope."

The caution here is one that applies to utopian visions generally: perfect is always imperfect, as it must be, and imperfect—a world of disappointments and surprises—is as good as it gets. It is hard to know whether McDonough recognizes this. He is in the first blush of success, where he wants everything to be right and believes it is possible. He asks, "Why should it ever be necessary to tear the [clothing-store chain's] complex down?" and thinks that the question is rhetorical.

Secret word

21. Which of the following best captures how the author characterizes McDonough?
    - **A.** An "eco-nut" whose dedication to bird conservation forms his ideas on architecture
    - **B.** A tough competitor who gives clients what they want in order to win large corporate contracts
    - **C.** A teacher focusing his lectures on conservative design and maintaining tradition
    - **D.** An idealist who aspires to timeless, thoughtful building designs

GO ON TO THE NEXT PAGE.

22. In the passage, McDonough mentions that a work environment should provide workers with all of the following EXCEPT:

F. abundant natural light.
G. a sense of spaciousness.
H. furnishings from a designer society.
J. places to experience nature indoors.

23. The author characterizes the clothing-store chain's office complex as:

A. inventive and environmentally responsible.
B. traditional and lasting.
C. visionary and impractical.
D. light-filled and overly expensive.

24. According to the passage, McDonough believes that building design should be based on all of the following EXCEPT:

F. environmental responsibility.
G. the needs of future generations.
H. physical attractiveness and function.
J. popular definitions of beauty.

25. In terms of the passage as a whole, the main function of the third and fourth paragraphs (lines 24–42) is to:

A. provide specific details from one building to illustrate McDonough's philosophy of design.
B. argue that the external beauty of McDonough's building overwhelms its interior features.
C. provide a contrast to the more practical and environmentally safe methods of construction discussed elsewhere in the passage.
D. discuss the workers' reactions to a building in which the "inside is essentially the outside."

26. The main purpose of the fifth paragraph (lines 43–55) is to reveal:

F. characteristics of McDonough's design that exceed state law standards.
G. the relationship between a particular building's design and the human response to it.
H. the process used to grow roof grasses and courtyard greenery.
J. construction methods used to build a structure that seems empty even on a busy workday.

27. It can reasonably be inferred from the passage that McDonough would characterize many buildings today as being:

A. designed based on values from the past.
B. responsive to the emotional needs of workers.
C. environmentally sound and energy efficient.
D. of enduring quality and built to last.

28. According to McDonough, as he is presented in the passage, competition between the architectural firms bidding for the clothing-store office complex contract was based on:

F. amount of professional experience.
G. cost.
H. ideas.
J. work schedules.

29. Which of the following new factors would McDonough most likely say should be incorporated into "the old impulses" referred to in line 20?

A. Concern for the economic interests of industry
B. Consideration for the natural environment
C. Reshaping the landscape to accentuate new construction
D. Embracing socially accepted concepts of beauty

30. In the last paragraph, the author most nearly characterizes McDonough's vision as:

F. idealistic but humble.
G. positive but inconsistent.
H. revolutionary but unrealistic.
J. intriguing but disappointing.

Secret word

Passage IV

NATURAL SCIENCE: This passage is adapted from the article "The Hum of Bees" by Susan Brind Morrow, which appeared in *Harper's Magazine* (©1998 by the Harper's Magazine Foundation). Note that all worker honeybees are female.

A beehive in summer contains 30,000 bees or more. In the spring and summer a queen lays up to 1,500 eggs a day. The infant bees emerge, just as many older worker bees die, having shredded their wings to pieces in foraging flights. The life span of a worker is four to six weeks. The queen will live up to four or five years.

These are the intricate stages of a honeybee's career. First, maggotlike larvae hatch from the eggs laid in the hexagonal cells of the hive by the queen. Young workers of five days of age or more who have been feeding heavily on pollen produce for the larvae a protein-rich substance called bee milk or royal jelly. The larvae grow to five hundred times their original weight. In six days, when their bodies have swollen to fill their cells completely, they spin silk cocoons about themselves. Older workers cap the cells with a fine, light wax. The new bee miraculously evolves, translucent and perfect, and on the twelfth day after the capping chews her way out through the lid of her cell.

For the first three days of life the young bee walks around the brood comb, licking clean the newly emptied cells and polishing them with her saliva. Only if a cell has been prepared this way will the queen lower her abdomen into it and lay an egg. After three days, the hypopharyngeal glands in the young bee's head have fully developed, and she becomes a nurse. She begins by feeding the older, bigger larvae, but as she becomes more skilled she feeds the younger, more delicate larvae with bee milk from her mouth. At the end of ten days the glands on the head of the nurse begin to shrink; she can no longer produce royal jelly.

The four pairs of wax glands on her lower abdomen have now reached their full size, and she begins to secrete wax. The wax forms in scales and slides out from the underside of her abdomen. In the warmer months, when the population of the hive swells, the wax-producing bees begin to build layers of new comb. They gorge themselves on honey and secrete immense quantities of wax (consuming six to eight pounds of honey to produce one pound of wax). Workers roll the wax up away from their abdomens with their legs, and chew and soften it with saliva. With their mouths and feet they manipulate the wax to form the mathematically precise sheets of fragile hexagonal cells that honeybees have routinely created for millions of years.

In the second stage of life (between ten and twenty days old) worker bees go to the entrance of the hive and receive in their mouths the nectar that older foragers have brought back in their honey stomachs. A forager may visit hundreds of sources of nectar (for example, each of the florets on a head of clover) to fill her honey stomach—a kind of holding tank—just once. Every teaspoon of honey may require thousands of trips to the field by forager bees.

The receiving bee holds the nectar in her honey stomach as she carries it up to the cells where the honey is stored. When she disgorges the nectar she adds to it fluids secreted from her salivary and now contracted hypopharyngeal glands, filled with enzymes to purify and preserve the honey. The receiving bees pack the nectar into honey cells. Other workers stand above, thrumming their wings to evaporate excess moisture and thicken the nectar.

The bees now begin to make their first excursions outside, short flights to familiarize themselves with the territory. Some are responsible for clearing refuse from the hive; they carry the corpses of other bees a distance from the hive and drop them to the ground. Others guard the entrance to the hive; they use their stingers to attack intruders, including honey-stealing bees from other hives.

In the final period of a worker bee's life, from about the twentieth day until her death, she becomes a forager, collecting water, resin, nectar, or pollen. Her body is ingeniously shaped for the work. Her inner back legs are covered with bristly brushes that mesh together on opposite legs. The bee brushes away pollen from a flower's thickly coated stamens, then forces the pollen through the stiff hairs of one leg with the bristles of the leg opposite, as though combing or sifting it. On the outer side of her back legs are deep indentations called pollen baskets. She moistens the pollen with honey that she has brought from the hive in her honey stomach. She forms the pollen into a ball, like bread dough, packs it into her pollen baskets, then flies back to the hive with bright bulbs of pollen bulging from her legs.

Secret word

31. According to the passage, which of the following is an accurate sequence of the roles performed by a worker honeybee?

A. Nurse, comb-builder, receiver, forager
B. Forager, nurse, comb-builder, receiver
C. Receiver, nurse, comb-builder, forager
D. Comb-builder, nurse, forager, receiver

32. The passage answers all of the following questions EXCEPT:
   F. How do worker honeybees protect their hive from invaders?
   G. How much honey do worker honeybees consume in order to produce a certain quantity of wax?
   H. What part of a flower is the source of the pollen that worker honeybees collect?
   J. Which flowers yield the pollen that worker honeybees prefer when they are building new comb?

33. According to the second paragraph (lines 8–20), what happens to the weight of a worker honeybee larva between the time it hatches and the time it spins a cocoon?
   A. It increases 100-fold.
   B. It increases 500-fold.
   C. It decreases by half.
   D. It doubles, then decreases slightly.

34. The third paragraph (lines 21–32) indicates that in feeding a smaller larva as opposed to a larger larva, a worker honeybee needs more:
   F. delicate methods of manipulating wax.
   G. productive hypopharyngeal glands.
   H. refined feeding techniques.
   J. vigorous assistance from other bees.

35. According to the passage, the shape of the cells in a comb is a result of the worker honeybees' manipulation of wax using their:
   A. mouth and feet.
   B. antennae and wax glands.
   C. abdomen and saliva glands.
   D. legs and lower abdomen.

36. Which of the following best describes some of the chores performed by worker honeybees in "the second stage" of life?
   F. Storing and purifying honey, producing royal jelly, building cells for egg-laying
   G. Nursing the young, aiding the queen, gorging on honey in preparation for the next stage of life
   H. Storing and purifying honey, cleaning the hive, guarding against intruders
   J. Spinning a cocoon, cleaning cells, nursing the young

37. If the seventh paragraph (lines 66–73) were deleted, the passage would NOT indicate that:
   A. worker honeybees leave the hive to collect pollen.
   B. corpses of honeybees are removed from the hive.
   C. receiving worker honeybees pack nectar into honey cells.
   D. pollen baskets develop on the outside of a worker honeybee's legs.

38. The passage states that bee milk is a substance rich in:
   F. calcium.
   G. protein.
   H. saliva.
   J. honey.

39. According to the passage, at what point in a worker honeybee's life does she prepare cells for egg-laying?
   A. During the first three days after she emerges from her cocoon
   B. Throughout her adult life as part of a set of ongoing duties for the hive
   C. Anytime prior to forming her own cocoon
   D. After she receives a special signal from the queen

40. Based on the passage, a foraging worker honeybee leaving the hive is likely to be carrying a supply of honey to:
   F. hide from honey-stealing bees.
   G. sustain herself in her journey.
   H. serve as a scent for other honeybees to follow.
   J. mix with the pollen when filling her baskets.

END OF TEST 3

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Secret word