

BERKELEY QUESTIONS by Katy Suttorp (2), ____\95

1. A French physicist and mathematician, he reconciled Newton's experimental and theoretical values for the velocity of sound by showing that the reproduction of sound is an adiabatic process. With Lavoisier, he made the first determination of the coefficient of expansion of a metal rod and began the study of thermochemistry. FTP, name this man who is best known for his law relating the pressure difference across a closed plastic membrane to the tension in the membrane.

\Marquis Pierre Simon de LAPLACE\

2. In his novels, he describes the injustice and degradation suffered by millions of Russians in the Stalinist concentration camps. Publication of his writing and his outspoken criticism of Soviet treatment of writers, led to his exile in 1974, first to Switzerland and later to the United States where he wrote The Oak and the Calf. FTP, name the author whose autobiography is titled When the Calf Horns the Oak, and who completed The Gulag Archipelago while in exile.

\Aleksandr SOLZHENITSYN\

3. It is considered a black, back-to-Africa movement in Jamaica organized by Marcus Garvey which compares the "heaven" of Ethiopia with the "hell" of Jamaica. It makes the former emperor Haile Selassie the object of a cult, and takes its name from his original name. A Jamaica-based sect promotes love, peace and ganja. FTP, name this movement whose Jamaican sect is noted for reggae music and its' members dread locks.

\RAS TAFARI\

4. An American anatomist and parasitologist, his studies on protozoa made him an authority on the subject and his research on fossil deposits laid the foundation for American paleontology. His A Flora and Fauna Within Living Animals was the first important study of the alimentary canal's parasites and his Researches Into the Comparative Anatomy of the Liver was the first thorough study of the liver. FTP, name this man whose discovery of "Trichina spiralis" led to the prevention of trichinosis in man.

\Joseph LEIDY\

5. Originally conceived to explain the abundance of strongly interacting particles, such as the proton and its many excited states, they are intended to replace the Newtonian concept of a point particle. The theories regarding them are especially appealing because they provide the first example of a consistent quantum theory of gravity. FTP, give the term for these extremely small particles whose theories were eclipsed around 1974 as quarks.

\SUPERSTRINGS\

6. Tables in atlases usually give its area as 26,500 square miles. And up until 1960, it was a valid measurement. Since 1960, its coastline has retreated about 50 miles and scientists say that unless current rates of water extraction are drastically reduced, it will disappear in the next century. FTP, name this sea in Central Asia, considered the world's fourth largest inland sea.

\ARAL SEA\

7. Although both its origin and its fate remain a mystery, the skill that went into the construction of the buildings allows its walls to remain intact 500 years after the city was thought to be abandoned. Despite the thoroughness of the Spanish colonists, it remained undiscovered until the twentieth century and remains today, perched high in the Andes. FTP, name this city, home of the rulers of the Incan empire.

\MACHU PICCHU\

8. As a muckraking journalist, he was a regular columnist for the San Francisco Examiner and the Wasp from the Civil War to World War I. When he wasn't digging out the scandal at City Hall, he authored poems such as "The Legatee" and the "Van Nessiad" but is better remembered for his sardonic short stories. FTP, name this author of "In the Midst of Life" and "Can Such Things Be?"

\Ambrose BIERCE\

9. Originally called the Chinese gooseberry, a name switch and intensive marketing have turned it into a major international fruit. A native of China, a handful of its seeds were smuggled out of the country in 1904 by plant hunters. By 1986, more than 30 billion had been shipped to more than 30 countries. FTP, name this small, green fruit which has made more millionaires in New Zealand than any other enterprise.

\KIWI FRUIT\

10. Mosques, schools, street vendors, police, and water and electricity are all found here, in addition to perhaps a million squatters and the remains of thousands of others. It is actually a huge cemetery in which squatters have chosen to live in the tombs themselves as the only shelter available to them in the crowded city of Cairo. FTP, name this necropolis.

\The CITY OF THE DEAD\

11. It tells us that if we double the pressure of O₂ over liquid water, then the concentration oxygen in the water also doubles. Or in more straightforward terms, the solubility of a gas in a liquid is directly proportional to the partial pressure of the gas in contact with the liquid. FTP, name this law the value of whose proportionality constant depends on the gas, the solvent and the temperature.

\HENRY'S LAW\

12. It lies on 118 mud islands, in the midst of a shallow, murky lagoon. The first settlers who fled there from the mainland could only create secure foundations on the mud by sinking countless wooden piles so that every major building required nearly an underground forest. But despite the initial formidable conditions, the lagoons of the Adriatic have served it well. FTP, name this city, famed for its canals.

\VENICE\

13. Originally referring to the kingfisher supposed by the ancients to calm the sea for fourteen days during the winter solstice, it also functions as an adjective, meaning calm or peaceful. FTP, what word is it?

\HALCYON\

14. In Greek mythology, she was married to Cepheus, the king of Ethiopia. But in astronomy, her husband's constellation neighbors her own to the west. Relatively easy to sight in the autumn sky, the Milky Way passes through her W-shaped constellation and the double cluster in Perseus borders it to the Northeast. FTP, give the constellation named for the mother of Andromeda.

\CASSIOPEIA\

15. An American pioneer psychologist, he became the first president of the American Psychological Association and published many works. As the first president of Clark University, he established the first institute of child psychology in the U.S. FTP, name this man who founded the American Journal of Psychology.

\Granville Stanley HALL\

16. They involved mercantilist principles which were meant to displace the Dutch from the carrying trade by requiring that British ships be only ones to conduct trade with the colony. They further specified that most commodities produced in the colonies should be sent only to England and that all goods sent to the colonies be sent from English ports. FTP, name these series of laws passed in 1651 and repealed in 1849 which are considered one cause of the Revolutionary War.

\NAVIGATION ACTS\

17. His earlier painting was influenced by the realism of Caravaggio and depicted the acceptance, dignity, and harmony of Spanish domestic life. In contrast with those paintings, his court paintings of the royal family and its dwarves and jesters demonstrate almost terrifying perception of the character of the sitter. He is most noted for his ability to capture surface and light which made him a powerful influence on French Impressionism. FTP, name this artist whose patron was Philip II of Spain.

\Diego Rodriguez de Silva y VELAZQUEZ\

18. She was born in San Francisco and was living with her father there when the 1906 earthquake occurred. Fleeing to Europe the next year, she returned with Gertrude Stein in the mid-1930s. Among the tales in her 1963 autobiography, What is Remembered, is her account of the earthquake. FTP, name this woman.

\Alice B. TOKLAS\

19. The most consistently radical figure of postwar music, he studied with Schoenberg, among others and toured for many years with the dance company of Merce Cunningham. The basic message that he wanted to get across was that we should open our ears to every possible sound, every possible sound conjunction. But many people know him best for his composition, named for its duration of complete silence. FTP, name this composer of 4'33".

\John CAGE\

20. It was initially treated as a mild drug taken in medicinal sips and as a drink, it was considered too expensive compared to the alternative beverages available. But during the 18th century, its price fell and the taste for the drink spread. And once people had become addicted, the provision of a cheap and reliable source of it became a central aim of British colonial policy. FTP, name this beverage.

\TEA\