Valencia Fall Invitational 2001

Round 3--Questions by Chris Borglum

1) A tired-looking dog lies in the lower right corner in front of a female dwarf who stares out at the viewer. Eight figures crowd the foreground, while in the background a man is seen in a doorway. Spanish King Philip IV and his queen can be made out in the mirror on the back wall. This describes, FTP, what 1656 masterwork of Diego Velasquez?

A. **Las Meninas** (acc. “The Maids of Honor”)

2) It is harvested by a jimador (hee-ma-dor), who hacks back the serrated leaves of the plant from which it is distilled to reveal a core, called a pina, which is a little bigger than a human head. A good jimador can only cut 90 pinas a day, and since the plant itself takes 8-12 years to mature, a shortage is expected to begin soon. This is because of the trendiness, FTP, of what powerful spirit culled from the agave plants grown only in Mexico?

A. **tequila** (acc. “agave” until said in question)

3) This genetic disorder results from the disordered metabolism of a certain amino acid, caused when both parents are heterozygous carriers of the defective allele. Its name comes from high levels of a specific ketone found in the urine of those affected; they often suffer from mental retardation and growth abnormalities. FTP name this disorder characterized by the absence of the enzyme phenylanine hydroxylase.

A. **phenylketonuria**

4) Set in the 15th century, this convoluted drama features poisoned porridge, blown-up Turkish troops, and people boiled in cauldrons. The title character, Barabbas, won’t convert to Christianity and embarks on a long string of double dealing to win his wealth back from the title island’s governor. FTP name this play by Christopher Marlowe.

A. ***The Jew of Malta***

5) It works because of the absorption of electromagnetic radiation by certain atomic nuclei in a stable magnetic field results in a change of orientation of the atomic nuclei; these nuclei respond to the magnetic field like miniature bar magnets. Its main application is in spectroscopy, in which it comes in two forms: continuous wave and Fourier transform. FTP name this process of which Magnetic Resonance Imaging is also a form.

A. **nuclear magnetic resonance** (acc. **NMR**)

6) They are seven mostly undeveloped coral and sand islands. Discovered by Ponce de Leon in 1513, he named them after the only land life he saw there. Construction began on a lighthouse on Garden Key, the largest, in 1825, followed by the construction of Fort Jefferson in 1846, though it remains unfinished. FTP what is this National Park 70 miles west of Key West whose name comes from the turtles found there?

A. **Dry Tortugas**

7) Though most of the Aesir avoided aging by eating the apples of Idun, this god chose to do so the fun way by stabbing himself with his own spear and hanging from Yggdrasil for nine days. He stole the Mead of Poetry from the giant Suttung and was master of Geri and Freki, two wolves, and Hugin and Munin, two ravens. FTP who is this chief Norse god?

A. **Odin**

8) Jack Burton is an obnoxious and swaggering trucker who is owed money by his friend Wang. To collect, he accompanies Wang to the airport to meet his fiancee, a green-eyed Chinese immigrant. Unfortunately, she is kidnapped by the lackeys of Lo Fan, who needs her blood to make himself flesh. This is a brief description, FTP, of the beginning of what fun-filled film featuring Kurt Russell fighting numerous enemies in Chinatown?

A. ***Big Trouble in Little China***

9) For ten tasty math points, in how many ways can a committee of three be formed from a group of seven people?

A. **35** (7!/4!3!)

10) These substances were originally defined by Thomas Graham in 1861 as those which will not diffuse through a membrane, such as a starch or a gelatin. Now they are seen as systems in which one or more distinct phases are dispersed in another. FTP name this general term encompassing gels, aerosols, and emulsions.

A. **colloids**

11) The plaintiff was a Louisiana resident who was traveling on a first-class ticket from New Orleans to Covington, Louisiana. Though only one of his great-grandparents was of African descent, the conductor noticed his difference and told him he had to leave the white section of the train. After the plaintiff refused, he was jailed. This sparked, FTP, what Supreme Court case which established the “separate but equal” doctrine?

A. **Plessy v. Ferguson**

12) Napoleon landed at Cannes on March 1, 1815, while the great powers were meeting at the Congress of Vienna. He won acclaim on his march north through France, and the Grand Alliance quickly reconstituted to battle him. By June he had raised enough troops to rout the Prussians at Ligny, but he was thoroughly defeated two days later at Waterloo. FTP what numerical name designates this roughly three-month return of Napoleon from exile?

A. **Hundred Days**

13) The 2000 honoree was *Bud, Not Buddy*, by Christopher Paul Curtis, and the 2001 winner is *A Year Down Yonder* by Richard Peck. The first award was given in 1922 to *The Story of Mankind*, by Hendrik van Loon. Other notable winners include *A Wrinkle in Time* and *Johnny Tremain*. FTP name this annual award given to “the most distinguished contribution to American literature for children.”

A. **Newbery** Medal

14) It was provoked by an open letter in the newspaper by eight clergymen, and the author began writing it in the margins of his copy of that newspaper. The clergymen accused the author of “untimely and unwise” actions, and of interfering as an outsider in their city’s 1963 civil rights struggle, as he was from Atlanta. In his letter, the author avers that the fight against racial injustice has no boundaries. FTP name this influential letter written by Martin Luther King, Jr., during a brief incarceration.

A. ***Letter from (a) Birmingham Jail***

15) In about 520 BCE, he began reorganizing the Athenian tribal system, replacing the four traditional tribes with ten named after local heroes. Each of these ten tribes was broken into thirds, then those thirds were broken into demes. FTP name the Athenian statesman who created the council of 500.

A. **Cleisthenes**

16) Two strands of DNA are separated and short sequences of another single strand of DNA are added, along with free nucleotides and a certain enzyme. Then, in a series of heating and cooling cycles, the DNA sequence doubles with each cycle, thus rapidly amplifying it. FTP name this alternative to gene cloning used to replicate DNA.

A. **polymerase chain reaction** (acc. **PCR**)

17) It opened in 1891, created in memory of its founder’s only son, who had died of typhoid fever. Its athletic teams have won the Sears Trophy, given to the school with the best overall record in all sports, more than any other university. Its golf team of the mid-1990s must have been unbelievable, featuring Casey Martin, up-and-coming PGA star Notah Begay, and another pretty good golfer. FTP name this prestigious west coast university, situated in Palo Alto, alma mater of Tiger Woods.

A. **Stanford**

18) His biprism is used to observe the interference of light from a slit passing through its two halves. His ellipsoid has three perpindicular axes proportional to the principal values of the wave velocity of light in an anisotropic medium. His fringe is a series of dark and light bands near the edge of a shadow in his diffraction. FTP name this Frenchie big in optics who’s perhaps best known for his lens.

A. Augustin **Fresnel**

19) It sits within a sacred enclosure call the Haram, and tradition suggests it was built by Abraham. It is entirely covered each year by a richly woven cloth called the Kiswa, and in its courtyard is the Well of Zamzam. FTP name this square building around which pilgrims circle during the Haj to Mecca.

A. **Ka’aba**

20) His grandfather, Moses, was a well known Jewish philosopher. In 1829, this composer conducted Bach’s St. Matthew Passion, its first performance since Bach’s death, re-awakening the musical world to that composer’s genius. His own works include the Scottish and Italian Symphonies. FTP name this composer of the oratorio Elijah and the Overture to A Midsummer Night’s Dream.

A. Felix **Mendelssohn**

21) It first emerged in 1980 after shipyard strikes organized by the Free Union of the Baltic Coast. In response, Prime Minister Wojcech (voi-check) Jaruzelski (yair-uh-zul-ski) imposed martial law and arrested many of the movement’s leaders. FTP name this Polish trade-union movement led by Lech Walesa.

A. **Solidarity**

Boni

1) Given a U.S. city, drive due west and tell me what state you would pass into first. For example, if I gave you Tallahassee, you would say “Alabama.” We hope. Five points each:

Madison, Wisconsin A. Iowa

Springfield, Illinois A. Missouri

Oxford, Mississippi A. Arkansas

Boise, Idaho A. Oregon

Minneapolis A. South Dakota

Frankfort, Kentucky A. Indiana

2) Identify the following U.S. Presidents from their military experience FTPE.

He commanded an artillery unit in World War I

A. Harry S **Truman**

The last president to be a Civil War veteran, he served under Rutherford B. Hayes.

A. William **McKinley**

This president fought with a state militia in the Black Hawk War, though he later said his primary enemies were mosquitoes, not Indians.

A. Abraham **Lincoln**

3) Given the first line of a well known American poem, name its author for ten points; if you need the name of the poem, you’ll get five.

10 pts. “The land was ours before we were the land’s.”

5 pts. “The Gift Outright” A. Robert **Frost**

10 pts. “This is the forest primeval.”

5 pts. “Evangeline” A. Henry Wadsworth **Longfellow**

10 pts. “Call the roller of big cigars”

5 pts. “The Emperor of Ice-Cream” A. Wallace **Stevens**

4) Of course you already know that three types of radioactivity occur in nature, so now you just have to name them from a description FTPE.

This type is essentially a highly energetic form of light which is uncharged.

A. gamma

Because it consists of two protons and two neutrons, it carries a +2 charge.

A. alpha

This last type consists of streams of electrons traveling at 40% of the speed of light.

A. beta

5) Now it’s time to show up the tournament director! Answer these questions blown by Valencia’s coach at a summer tournament FTPE.

Chris stupidly said Robert Deniro directed “Alice Doesn’t Live Here Anymore,” when in fact it was this friend of Deniro’s, the Italian director of Taxi Driver and Raging Bull.

A. Martin **Scorsese**

After buzzing in, Chris knew that the band Soft Cell was responsible for the lyric “Once I ran to you, now I run from you,” but he couldn’t remember that those lines come from what classic 80s song?

A. “Tainted Love”

Finally, your T.D. negged by crying out “Alonzo Mourning” when in fact the question was looking for this Serb seven-footer, currently with the Sacramento Kings.

A. Vlade **Divac**

6) 30-20-10 Name the novel from characters in it.

30) Ellen Dean; Mr. Lockwood

20) Edgar Linton

10) Catherine Earnshaw; Linton Heathcliff

A. Wuthering Heights

7) Identify these genetic terms from definitions FTPE.

This term refers to the observable characteristics of an organism, like blue eyes or brown hair.

A. phenotype

This term designates an organism’s combination of alleles or general genetic composition.

A. genotype

This is the number and structure of the chromosomes in the nucleus of a cell.

A. karyotype

8) In 1998, President Clinton signed the American Heritage Rivers Bill into law. Identify these rivers that made the list from descriptions FTPE.

This 310-mile, north-flowing river drains about one-sixth of Florida.

A. St. Johns

This river begins at Lake of the Clouds and flows 315 miles southeast through New York to the Verrazano Narrows.

A. Hudson

This river flows north through Oregon from the Cascade Mountains to the Coast Range where it joins the Columbia River.

A. Willamette

9) Answer the following concerning a Swiss psychologist FSNOP.

First, FTP, what Swiss thinker broke with Freud early in the 20th century and coined the term “archetype?”

A. Carl **Jung**

FTPE, the persona, the shadow, and what other two elements, referring to the male and female spirit, composed Jung’s four archetypes?

A. animus and anima

10) Answer the following about an early 17th century incident in England FTPE.

What name is given to the conspiracy of a number of prominent British Catholics to blow up the House of Lords on the opening day of parliament in 1605?

A. **Gunpowder Plot**

What monarch was targeted by the Gunpowder Plot because of what the conspirators saw as his anti-Catholic positions?

A. **James I**

What soldier of fortune was first arrested coming out from the cellar beneath the House of Lords on November 5, a day still celebrated in England by burning his effigy?

A. **Guy Fawkes**

11) 30-20-10 Name the planet.

30) Known about since the time of the Sumerians, it has a highly eccentric orbit and a heavily cratered surface.

20) Its odd orbit was sometimes explained by the possibility of another planet, sometimes called Vulcan, near its orbit.

10) The real reason for its eccentric orbit is due to relativity, and its orbit tends to be about .38 Astronomical Units from the sun.

A. **Mercury**

12) Answer the following concerning Mao Tse Tung FTPE.

What name is given to the great trek Mao led in 1934 and 35 in which he led 90,000 of his troops and their families from Jianxing to Ghiazou province?

A. **Long March**

Begun in 1966, what movement tried to eliminate all bourgeois elements from Chinese culture, leading to the deaths and imprisonment of many intellectuals and other enemies of Mao?

A. **Cultural Revolution**

This name was given to the group whom the communists later blamed for the excesses of the Cultural Revolution, including Mao’s wife, Jian Qing.

A. **Gang of Four**

13) Given a famous building, name its famous architect FFPE and a five-point bonus for getting them all.

Robie House A. Frank Lloyd **Wright**

Bauhaus Architecture School A. Walter **Gropius**

Gateway Arch, St. Louis A. Eero **Saarinen**

Seagram Building A. Ludwig **Mies van der Rohe**

Wainwright Building A. Louis **Sullivan**

14) Given a description, name the dramatic form or school of drama FTPE.

These Japanese plays differ from Kabuki in that they deal with historical themes and often have Buddhist overtones.

A. **Noh**

These medieval dramas were based on the Bible and grew out of dramatically expanded presentations of the events of Christ’s life.

A. **mystery plays**

Major figures of this 20th century school include Eugene Ionesco, Jean Genet, and Tom Stoppard, and its works emphasize the arbitrariness and meaninglessness of existence.

A. **Theater of the Absurd**

15) Given a 19th or 20th century work of art, tell both who created it, and to what art movement it belongs, FFPE.

The urinal called “Fountain” A. Marcel **Duchamp; Dada**

Woman III A. Willem **de Kooning; Abstract Expressionism**

Haystacks A. Claude **Monet; Impressionism**

16) Show your command of Shakespeare trivia by answering the following FTPE.

This play has the smallest percentage of verse, 12%, perhaps because of all the buffoonish dialogue between the protagonist and the title women.

A. ***The Merry Wives of Windsor***

Hamlet speaks the most lines of any character, with 1,507, but this scheming monarch is second with 1,145.

A. **Richard III**

What dominant character of *As You Like It* speaks the most lines of any Shakespearean female with 721?

A. **Rosalind**

17) 30-20-10 Name the band from songs.

30) Savoy Truffle; Blue Jay Way

20) She’s a Woman; I Feel Fine

10) Rocky Raccoon; Yellow Submarine

A. The Beatles

18) In this bonus you’ll be read a list of movies and, FTP, you’ll then name the actress common to all three.

Sliding Doors; Seven; The Talented Mr. Ripley

A. Gwyneth **Paltrow**

Tootsie; The Accidental Tourist; Earth Girls Are Easy

A. **Geena Davis**

Man on the Moon; The People vs. Larry Flynt; Basquiat

A. **Courtney Love**

19) Identify the following pioneers in the study of electricity FTPE.

This Frenchman measured the attraction and repulsion between electic charges, finding they obey an inverse square law.

A. Charles **Coulomb**

This American demonstrated Faraday’s Law and was the first director of the Smithsonian.

A. Joseph **Henry**

This other Frenchman explained how an electric current produces a magnetic field and was rewarded by having the unit for current named for him.

A. Andre-Marie **Ampere**

20) 30-20-10 Name the philosopher from works.

30) Repetitions; Concluding Unscientific Postscript

20) Sickness unto Death

10) Either/Or; Fear and Trembling

A. Soren **Kierkegaard**