AUSTRALIAN ALMANAC



Einstein the Artist

by Shawna Halevy, part 2 of 2

My discovery was a result of musical perception.

—Albert Einstein

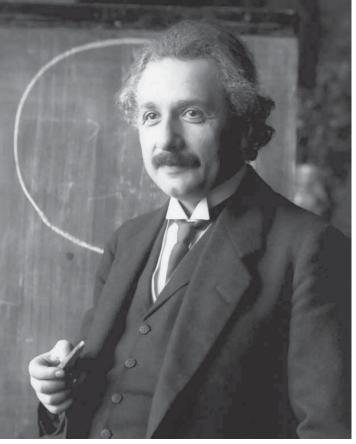
The Aesthetical Principle

The impulse to search for symmetry and to delight in the beauty of a figure is recognized as natural, when looking at flowers or pastoral scenes; but to use this as a method in physics in choosing a theory or hypothesis seems strange to us. Yet this was exactly the way Einstein operated.

"One feels a great aesthetic pleasure when working. Even in mathematical figures one is looking for harmony, and it seems to me that harmony is the equivalent of beauty and of pleasure. The intellectual pleasure is closely related to the aesthetic one. As a rule, one's work is prompted by curiosity and a certain obsession which cannot always be fully explained.... Music and physical research work originate in different sources, but they are interrelated through their common aim, which is the desire to express the unknown. Their reactions are different, but their results are supplementary. As to artistic and scientific creation, I hold with Schopenhauer that their strongest motive is the desire to leave behind the rawness and monotony of everyday life, so as to take refuge in a world crowded with the images of our own creation. . . . The further we proceed, the more formidable are the riddles facing us. Yet I'm no pessimist. Let us always remember that beauty is also truth."

Even though intuition and improvisation are central to Einstein's work as a catalyst, he doesn't use them as a formula; there is much passion and rigor required to follow through on an idea. Einstein points out that this "seeking the beauty of a thing" involves "infinitely exhausting work" as well.

"You see, ultimately even the work of the scholarly researcher comes to fruition in the field of the imagination. When I think back, how my discoveries came about and took shape! A hundred times, one runs into a brick wall, to try to hold onto, define something, which is an unclear feeling, floating before you, to bring it into a system, in short, to reach the last summit. In vain. And then, at another time, perhaps like a flash, the resolving thought; and then begins the infinitely exhausting work of constructing and developing the system. This is no different from what happens to an artist. Concentration, extended will-power, years of endurance create a work. That is the temperament required. Because mere intuition does not suffice. Artistic premonition plays a not insignificant role in my life.... If I were not a physicist, I would probably be a musician. I often think in music. I live my day dreams in music. I see my life in



About his discovery of Special Relativity, Einstein said that it "occurred to me by intuition, and music was the driving force behind that intuition. My discovery was the result of musical perception."

terms of music."19

An account of a close relative tells us: "He works like an artist, First he sees the outlines, you may say the vision, of a great thought, and then he sets to work to substantiate it, to give it body and soul." Working like an artist is not characterized by outward tendencies, but by the inner drive to seek and operate on the truth and reason that the craftsman of the world used.

The biographers who provide these different quotes, all try to tag Einstein's work with music as some sort of therapeutic retreat, to deal with emotions like a Boomer, instead of, what I think is fair to say, a religious practice; searching for God and investigating His Creation— not just beauty and harmony in itself, but the human mind. Einstein was participating in being human, exploring other composers' creativity, as well as his own, and bringing that expression to others in the string quartets he played in.²⁰ Music is the study of the universe as it is reflected in God's Creation, man's mind.

"He merely insists upon the right to play because, as he says, I feel the creative process in the composer. . . . I personally feel the highest possible degree of happiness through great works of art. From them I

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receive spiritual gifts of such strength as I cannot receive from other things... It is the ethical impression, the ethical elevation, the ethical satisfaction which I conceive in an incomparable way when the work of art radiates at me.'... Music continued to beguile Einstein. It was not so much an escape as it was a connection: to the harmony underlying the universe, to the creative genius of the great composers, and to other people who felt comfortable bonding with more than just words. He was awed, both in music and in physics, by the beauty of harmonies."²¹

Conclusion

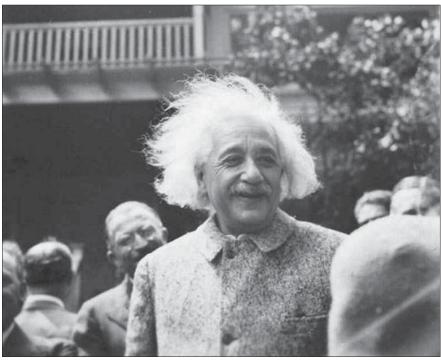
There is a very clear unfolding of the universe in its striving and continual progress towards perfection, to express more and more of its potential, as so succinctly expressed by Einstein's saying, "The universe is finite, yet unbounded." The material of the Becoming is con-

will never be obtained as a fixed destination would. This is also true for the finite individual identity, which strives for the infinite divine. Even though our personal condition is always changing, (our moods and opinions, etc.) there is something unchanging, a unity, which allows us to refer to ourselves as the same personality, our "I," because of the internal one we are always striving towards. This can be seen when looking over the entirety of Einstein's life. Biographers are perplexed by the account of Einstein's changed appreciation of Beethoven:

"After his colleagues updated, as a seventy-fifth birthday gift, the music system they had given him five years earlier, Einstein began repeatedly to play an RCA Victor recording of Beethoven's "Missa Solemnis." It was an unusual choice for two reasons. He tended to regard Beethoven, who was not his favourite composer, as 'too personal, almost naked.' Also, his religious instincts did not usually include these sorts of trappings."

For me, this is not a mystery. Einstein developed. He didn't just make a breakthrough in 1905, and quit there; he continually worked to improve his thinking. The characters of Beethoven and Einstein are very similar. Both were popularly perceived as being introverted, but in actuality, they each had a great passion of doing good for humanity. Both men were very spiritual, though they didn't adhere to any particular dogma. Hence, why Einstein found Beethoven "too personal." Then it is clear why Einstein had to evolve his mind to the point where he no longer needed "a running start" to listen to Beethoven, and could reach Beethoven's matured state.22

When looking at the different paradoxes Einstein



The material of the Becoming is constantly evolving towards the Being, which

As a young man, Einstein had described Beethoven's music as "too personal, almost naked." Yet, when he was given a new music system for his 75th birthday, he played, over and over, a recording of the "Missa Solemnis." Thus, Einstein's thinking continued to change and develop throughout his life.

had dealt with in working with Relativity, you can see how poetry must supersede mathematics. What the scientific community that was working on Relativity was lacking, was a living mind, the mind of a creator or an artist.

A culture consciously organized for society should be based on the same principles we find in the world and in mind. This is the case with a Classical culture and music, where you have a continuous changing of the parts, to better fulfil its higher (unchanging in a sense) unity; a self-creating culture. Culture acts as a medium between the individual and the world outside him, resolving the part and the whole into the same substance of truth.

As Einstein said, "The big political doings of our time are so disheartening that in our generation one feels quite alone. It is as if people had lost the passion for justice and dignity and no longer treasured what better generations have won by extraordinary sacrifices. . . . But Mozart remains as beautiful and tender as he always was and always will be. There is, after all, something eternal that lies beyond reach of the hand of fate and of all human delusions."

You can see that a culture of an adult civilization is more than just a genre of style or taste. To simply delight in the sensuously beautiful will actually get you stuck in a Romantic passiveness, and you will use music for comfort. In being challenged by sublime art, music puts you in a state to fulfil an inner demand for a better world. It puts you in an active, potent attitude, based on your creative nature, from which you find internal strength. This is much different from an enraged mob at a rock concert. Science, and the rest of a modern society, cannot survive without

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beautiful art.

The lineage and power of Classical culture have been purposefully obscured by the oligarchy—a class of people who do not believe that all men are created equal—to keep us as cattle. More effective than physical force, ignorance and ugly pessimism are the main weapons for slavery; if you kill the passion for truth, and destroy the imagination of a people, all of a sudden, they are no longer able to think and defend themselves.

Classical culture, on the other hand, was created and developed over generations to counter this evil operation against mankind. Through this environment, the imagination of a creative individual is able to leap to new conceptions by free play, to solve problems that logically had no solution. This is the process of lawfully revolutionizing the currently conceived world picture and man's interaction with it, by reaching a higher state, above the senses, where reality presides. In a beautiful culture, you find a source of love for mankind in recognizing its purpose and creative worth, through discovering this within yourself; you find a passion for life and compassion for the world as a whole. Without this ability to create new conceptions or states of mind, and to be put into a state of passion, there's no motivation or confidence to drive for the future.

The beauty that is so moving it is uncomfortable (as opposed to the Romantic, pretty things that make you feel good) is only found in Classical art. This emotion, created by the experience of a Classical work, is very mixed; there's the melancholy of seeing clearly the mortality of the individual, which is enveloped by the optimism that his ideas and influence live on. This complex emotion is starkly different from the superficial pursuit of banal pleasure and the avoidance of pain we find in modern entertainment.23

Classical art uplifts and inspires, and challenges you to change, to always do more to unfold your purpose in life, through your imagination. The imagination is where you can answer the question of morality: "Are you capable of acting and contributing something beyond your physical existence?" This is the question of immortality of the human soul, as opposed to the fame that gets glamorized in the mass cult of popular culture today.

To think that these aspects of art don't have everything to do with critical thinking or having rigorous reasoning capabilities, as in science and politics, is

wholly ignorant. The ultimate destruction of culture came with Liberalism: the acceptance of the belief that there are no true principles, or if there are, we can't know them. The burning of the bridge between art and science is the roadblock to returning to a healthy, productive culture. Realizing this and resynthesizing the human soul and mind in society will be as a cultural Glass-Steagall: a first step to a global recovery in reclaiming our wilful role in the evolution of the universe. Humanity has to adopt its own cause based on principles which adhere to human nature. The population is ready for leadership, and is ready to be inspired by beautiful truth, which is the only thing that can resonates with man. It's time to become fully conscious members of our Republic.



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-Einstein, commenting on the events of the 1930s and 40s.

Footnotes:

19. Kieler Zeitung, October 1920; and George Sylvester Viereck, Glimpses of the Great (1930).

20. In fact, these are exactly the steps Johannes Kepler took in discovering gravity as a dynamic system governing the interrelations of the planets in his *Harmony of the World*.

21. Albert Einstein, The Human Side: New Glimpses from His Archives, Helen Dukas, Banesh Hoffman, eds. (1979)

22. "There is nothing higher than to approach the Godhead more nearly than other mortals and by means of that contact to spread the rays of the Godhead through the human race."—Beethoven. "I want to know how

God created this world. I'm not interested in this or that phenomenon, in the spectrum of this or that element. I want to know His thoughts, the rest are details."—Einstein Wilhelm Furtwängler considered Beethoven's "Missa Solemnis," for which Beethoven wrote the inscription, "From the heart, to the heart," so great, that he thought it was virtually unperformable.

23. "It seems to me that in our time we do not sufficiently appreciate the significance of an active participation in music as a means of development and of finding true happiness. A constant activity in music will contribute much toward the building up of a well-rounded character and enriching of the soul because of the possibility afforded by it to explore and relive depths of emotions."—Einstein.

Isherwood:

Nations want food, not free trade bulldust

nstead of selling off the farm, Australia should enter into long-term, government-to-government contracts with nations such as China to provide what they really want—a guaranteed food supply, Citizens Electoral Council leader Craig Isherwood said today.

"Nations that are serious about food security know free trade is a delusion," Isherwood said. "Their governments are actively seeking arrangements with other nations to secure food sources.

"By contrast, both of Australia's ruling parties are hell-bent on destroying food production in Australia through a combination of British free trade and British green fascism. No other country in the world would destroy their principal food bowl the way the ALP is using a Coalition law, the *Water Act 2007*, to smash food production in the Murray-Darling Basin, and no other country lets two big retailers screw their producers the way the free trade nuts in Canberra let Coles and Woolworths squeeze the life out of Australian family farmers in the name of 'competition'.

"However," he continued, "the very same mad devotion to free trade makes the major parties happy to sell off Australian land to foreign investors—free trade and national sovereignty don't mix. The irony is, the countries that are keen to secure their food supplies are seeking to buy our land, to grow the food that we should be growing.

"It is now getting out of control: I I per cent of Australian land is currently foreign-owned, twice the area of Victoria," he said. Isherwood said the way to protect our national sovereignty,

and help our trading partners secure their food needs, was through government-to-government contracts, which would also be key to a global recovery following a Glass-Steagall reorganisation of the bankrupt global financial system.

He explained, "The government should stop all land sales, and instead strike long-term deals with China and the Middle Eastern nations keen for food supplies, which will give Australian farmers a guaranteed market for expanded production.

"In a reorganised financial system based on fixed currency exchange rates, such contracts will underpin currency values; furthermore, a government-owned national bank, like the original Commonwealth Bank, would be able to issue credit against the contracts to develop and expand food production in the Ord River district, the Murray-Darling Basin, and other areas of food potential including the Bradfield Scheme region of Western Queensland.

"This is the way the world can rebuild a functional physical economy, which has been completely devastated by four decades of governments either standing—or being shoved—aside so bankers and speculators could sink their fangs into every sector of the economy for a quick buck."

Isherwood concluded, "With the global financial system now spiralling through a new phase of its disintegration, this looting has reached its end. The solution to the crisis is obvious; the problem is that the Australian people are mentally locked into the major parties, both of which are destroying us. The first step to solving the crisis is to break with the political interests that are causing it, and join the CEC."

As Trans-Atlantic system collapses, China goes to space

China announced June 15 at a press conference with the Shenzhou-9 crew that lift-off for their nearly two-week mission was scheduled for 6:37 PM Saturday local time. The following day, the Shenzhou 9 capsule lifted off as scheduled from the Jiuquan Satellite Launch Center on the edge of the Gobi Desert. All systems functioned normally and the launch was declared a success by space program chief Chang Wan-

quan. The crew will dock with the Tiangong-I space module, which has been in orbit since September, and will spend 10 days working in the small module. As expected, joining the two men is rookie astronaut Liu Yang, China's first female space flyer. Air Force Major Liu enlisted in the People's Liberation Army in 1997, and was chosen as an astronaut in the second batch of recruits in May 2010.

One of the two male astronauts will remain in the Shenzhou-9 capsule during the mission, in case of emergency, and Liu and the third crew member will spend a planned 10 days carrying out experiments in Tiangong-1. The proto-type station module successfully docked twice automatically with the unmanned Shenzhou-8 spacecraft last November. During this upcoming mission, the docking will be done manually by the crew, with the automatic docking capability available as a back-up. Demonstrating the manual docking of spacecraft in orbit is a necessary prerequisite to enable the construction of large space stations, and, later, multi-craft missions to the Moon and beyond.

Although this is only the fourth Chinese manned orbital mission since 2003, each has been carefully crafted to increase the capabilities of the crew members and the equipment. Next year, Shenzhou-10 will dock with Tiangong-1, perhaps for a longer stay in orbit, and China is readying a more capable and enhanced Tiangong-2 prototype station module, with the plan for a larger station complex to be completed by 2020.

