

ARCHIMEDES WAS WRONG, BUT THE SCIENCE HAS NEVER CORRECT HIM.

The phrase attributed to Archimedes "Give me a lever and raise the world," has a small basis of truth, because with the help of a lever, you can multiply the strength you use. Obviously, Archimedes did not think to lift the entire planet, but small parts of it. The lever is only an instrument to which to apply the force. The force at the time of Archimedes could only be applied manually, so the scientific errors on the application of force were not committed by Archimedes but the subsequent science, and still persist. On the principle of the lever were born the belt drive and gear ratios, hoists, winches etc. where, also, the revolutions between the driving and resisting pairs are also involved. In fact, by spinning at high speeds per minute the thermal and electric motors we see climbing the bodies to be lifted. Thermal ones are irreplaceable in all types of transport. We do not think that energy comes from a petroleum well or a pipeline, producing the first part of the source pollution, another part of pollution is produced for refining and transport. In the thermal power plant and in the thermal motors have a yield of about 35%, the distribution network loses 10-15%, the performance of an electric motor another 10%, the performance of the gears a high 10%, the performance of a fan or pump connected to the plant for cooling or other reasons loses another 30%. In the end, in many cases, we only use 10% of the initial thermal energy. All the rest is thermal and chemical pollution that the planet cannot afford. If we consider that the weight to lift is a small thing with respect to the acceleration of gravity that multiplies it by 9.81 m/s^2 , we should worry more about circumventing that strength than body weight. There was no scientific knowledge in Archimedes' time to do it, nor did technology. The scientific knowledge required has been provided by the fathers of science since the 1600s, while the technologies began to arrive at the end of the 1800s. In the early 1900s, Frederick Taylor, felt the need to rationalize how to work in industries to improve quality and quantity of work produced in the unit of time. The same should have been done by the public research and environmental organizations, but they have not yet done so. The undersigned who lived half the working life in the industry and half in the environment, on the model used by Taylor in the industry, has sought, as a retired, to organize environmental and energy work. Indeed, without such a model, it is not possible to distinguish useful, useless and damaging solutions that need to be selected by identifying common synergies, both in order not to pollute the environment and save money. The solutions I found are quite simple but they should not be fooled because they have taken several years of work. Bypass gravity has meant involving water and air in the environment together with pump, turbines, compressors, hydraulic and pneumatic systems. This has led to the return to the origin of energy systems, purification, water distribution to rationally integrate as an industrially-organized industrial enterprise, without taking into account existing plants that do not directly participate in energy processes, productive services and interactive purifications. All that is not needed for the interactive process is useless and inefficient.

We can overcome gravitational force especially in water, using hydraulic circuits intubated that by putting in series pumps and turbines, exploiting the energy of the water surface position with respect to the one below to produce submerged hydroelectric power. But we can also do it in the atmosphere by changing the hydraulic systems and lift pumps. In this case, we must use the pumps with the dual supply until to the impeller. These pumps bring the water to be lifted into the central part of the same impeller and the water already raised, by means of two distinctly separate feedings, up to the entry into the impeller. When the impeller rotates, add up the two flow rates, while, for the principle of Pascal, stabilizes a single pressure in suction and delivery (apart from the side connected to the water to be lifted connected by means of a one-way valve). As a result, during operation, the water to be lifted enters in the already raised water recycling circuit, this implies that from the overflow of the upper tank from spilling out the same amount of water that enters, which feeds back the lower reservoir exploiting the geodetic top water energy of the upper water. Obviously, if we put a hydraulic turbine at the output of the downhill pipe, we exploit the $\frac{1}{2} \rho V^2$ produced by kinetic energy, where V is equal to the square root of H height according to Torricelli's principle. While the water that entered, the low-pressure pump impeller consumed only the energy of a few centimeters of water column to overcome the losses in the inlet valve. In fact, all centrifugal pumps in the center of the impeller

create a depression that enters the water, which is pressurized in the same impeller as it moves away from the center. In pumps with the dual separate supply, the impeller receives alternately in the same sector, water in the high and low pressure, ranging in the same direction, therefore prevails Pascal effect and the exit of the impeller we have only the greater pressure. Since the water entering the recycle circuit already full is of the same density as the existing one, it does not consume energy to circulate because the amount of water that has entered the pump comes out of the overflow of the upper level. Obviously, the expelled water produces energy through the turbine and returns to the low tanks, in an infinite cycle. This circuit works with any level of geodetic water, as long as it is kept at the highest level. But it works even if we replace the geodetic level of the upper tank with a compressed air cushion to 100 bar, which statically exerts its pressure without being consumed (as we do not consume the atmospheric pressure). L'acqua incomprimibile circola all'interno del volume di acqua accumulato, entrando in bassa pressione e uscendo in alta pressione (a causa dell'impenetrabilità dei corpi), senza mai variare i livelli interni al serbatoio pressurizzato. Of course, a hydraulic turbine or a pump used as a turbine, powered at 100 bar, produces more energy than a gas turbine or a thermal engine, which at best can reach a pressure of 40 bar, not only because of the pressure difference but also because water has a density almost a thousand times higher than gas. Formulas for energy calculations of hydraulic and gas turbines already exist, and are not an invention of the undersigned. I think Archimedes, who could not know the principle of Pascal, of Torricelli and even the inventions of centrifugal pumps, turbines and compressors, would have recognized the importance of these inventions, including those of the undersigned, which also use them to solve the problems of the mechanical lifting, in addition to the energy and environmental ones. In fact, one or more pressurized hydroelectric motors (consisting of a double tank and a dual fuel pump and a turbocharger) can electrically power specially designed turbochargers and raise aircraft and spaceships with the energy they produce in the same (<http://www.spawhe.eu/aerospatial-pressurized-hydroelectric-transport-system/>). I think that Archimedes, who was a person, especially practice, in our era, would have understood before of subscribed the importance of the simultaneous us exploitation of the properties of water and air, and put aside the lever and most of the mechanical lifting systems that do not can compete with the power provided free of nature by Pascal and Torricelli and modestly, even from the inventions of the undersigned. It would have known that this energy should not be extracted from the ground, it should not be refined and therefore it costs nothing. It would also notice that it does not produce any type of pollution, and even dissolved oxygen in the water due to the laws of Henry and Dalton, who also are waiting for a couple of centuries to provide free oxygen in wells and polluted groundwater (<http://www.spawhe.eu/the-pressurized-submerged-hydroelectric/>). We just have to ask ourselves what has obscured the minds of modern science, economists, statisticians, and legislators. Probably also national and international justice. What is happening to the environment and the world economy is much worse than the Third World War, where the world will be deployed on opposite sides. Today there is a single front against the interactive energy between water and air because they are all wrong from a scientific, political, economic and environmental point of view. All guilty, no one guilty can be acceptable. But it is ridiculous that the powerful of science of politics and economics expect that a retiree produces even the prototypes of solutions that cover the entire planet and all areas of human activity. They put their soul in peace because if Pascal, Torricelli, Henry and Dalton run the current pumps and turbines, for the transitive properties, the interactive energy compressed between water and air also works, which protects the environment instead of damage.

Many suspect that science has never landed on the moon. I am not among them, but the suspicion is legitimate because a credible movie can be made by a good team of directors and screenwriters. Science if you want to be credible have to compare to practical applications. It can not hide behind the silence. Interactive energy even though it has never been realized because of the silences that surround it is the cleanest, most economical and powerful energy of Planet Earth. It can only improve because it did not even cost a hundred pound dollars to any government or organization worldwide. It does not violate the principles of energy conservation, because the system that produces it is an open system, where the functions

prescribed by Pascal, Torricelli and Henry act independently of the mechanical circulation of water, which is limited to balancing the pressures in the suction and discharge of the pump with the dual power supply separated until to the impeller so that in one side of the aspirator, it is easier to enter the amount of water necessary to keep the pressurized system in an unstable equilibrium which expels it due to of the principle of the impenetrability of bodies, which, like the other principles (Pascal, Torricelli, Henry), acts independently, without energy consumption. Who does not believe in the logical and creative way that brings together the principles laid down by the fathers of science, the natural principles of compressible air and unmistakable water, and the construction technology acquired for pumps, turbines, alternator valves, motors, can not pretend to be believed on the word and on a simple movie to prove he has gone to the moon. Beyond all, we are far from gaining space if we still use fossil energy to get out of the atmosphere and simple parachutes to return to earth or deposit probes on nearby planets.

Whit interactive energy we can also get up in the atmosphere and space without polluting and waste resources. Later they will understand the current leadership classes, the more their rating will drop. The world needs to be governed scientifically, but first it is necessary to form a global scientific culture that closes all the cycles that it opens, none excluded. Do not open the cycles that we are unable to close is the best solution, as described in several publications of <http://www.spawhe.eu>, which is just a retired website, which he is not a professor, nor a scientist but only a former employee of the industry and the environment. The public work done by the undersigned has never been asked for and never paid. The story will decide whether it will serve. For the time we are assisting helpless to flood and drought cyclones without any global environmental science organization.

Best Regard

Luigi Antonio Pezone