THEORY OF MOUNTAIN FOUNTAIN

Experimental Technical Monograph to introduce the influence of Sun's gravity for activation of mountain fountains

INTRODUCTION:

Live rivers in the world, as observed, are originated from mountain fountains. But the problem is 'How water is lifted so high of an elevation to spring out as fountains'.

It is not difficult to understand how rain water in a catchment area of a watershed, is collected and to descend as brooks. A rive is known to be formed whereas such brooks are connected in descending under gravity. Though such drainage rivers are dried out during the dry season, the live rivers that are originated from mountain fountains are not dried out even in droughts.

As per the carried out exploration, the origin of a live river is found moreover to be originated from high elevated positions in rocky hills. The question 'how water is lifted so high of altitudes' is highlighted and the necessity of a realistic explanation for the natural phenomenon is addressed herein by this experimental technical monograph.

01. **What is Hydrologist's theorization?**
    Annual mean rainfall upon any concerned watershed region and size of its catchment area should decide the mean river flow as per the hydrologist's theorization. It is accepted with no arguments. But that theory is applicable only for the rainwater draining rivers. But how could hydrologists reason out the difference between 'Live Rivers' and 'Drainage Rivers'? Live rivers normally don't dried out even during dry seasons.

02. **What is there in against of the Hydrologists Theorization?**
    i. Fountains and springs must be located only at bottommost elevations in mountainous water sheds, according to the gravitational logics. But in against of the gravitational logics, we observe that fountains springing out moreover at higher elevations of rocky hills in wet zones.
    ii. Why not such fountains are dried out even at dry seasons whereas no soil moisture could be observed in the upper water shed?
    iii. As we observe perhaps a bigger valley in a hilly area posses no rivers while the adjoining smaller valley surprisingly has a live silver river flowing even at a higher elevation and what is the secret behind?

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03. The alternative concept:

    i.   There are confined underground water aquifers in hilly wet zones and they are fed by infiltrated rainwater. They are not easily dried out even during dry seasons for being covered underground.

    ii.   Rocky hills are naturally cracked and there are many fractures and formed cavities inside of them. Perhaps a complete rock could have been cracked at the bottom but settled on earth due to gravity.

    iii.   Water must be available to be stores in such underground cavities and they are known as confined aquifers.

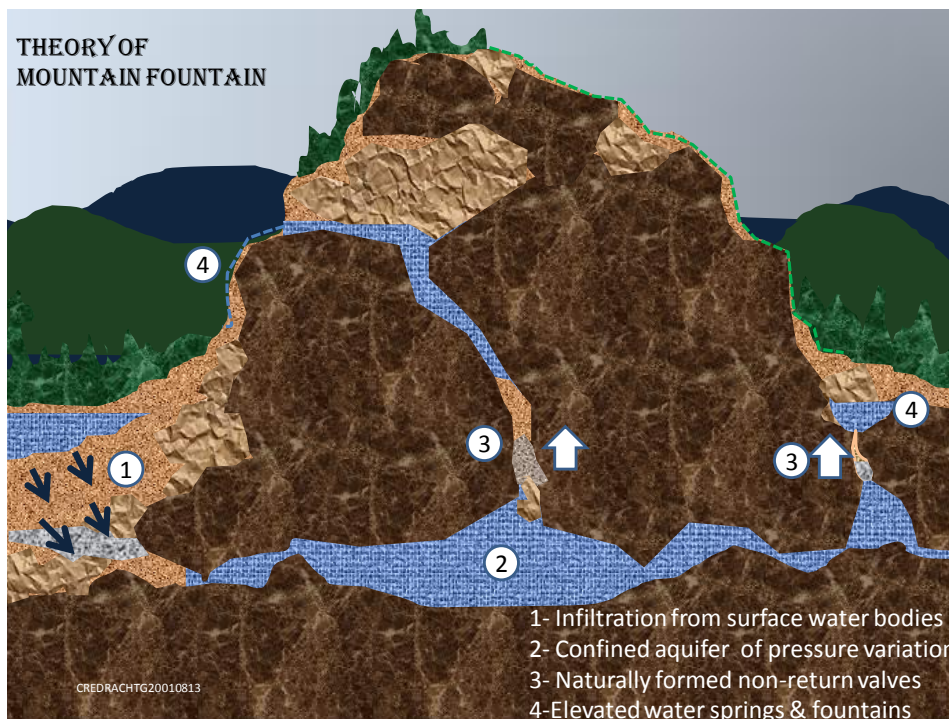   iv.   Non return valves, as natural water ports are easily formed in to such aquifers as shown in the figure-01.

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1- Infiltration from surface water bodies
2- Confined aquifer of pressure variation
3- Naturally formed non-return valves
4-Elevated water springs & fountains

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FIGURE-01

    v.   There must be a natural mechanism to pump aquifer water up creating mountain fountains but what is the phenomenon?

    vi.   A natural water pump is formed where as the upper mass of the cracked rock can behave as an independent separate mass. It can compress the water body below, under natural vibrations just as a piston, as explained in the figure-02.

    vii.   Non return valves can be naturally formed when finer soil particles are deposited on sand layers which are supported by rocky sediments. Then water can easily flow upside by lifting of the finer particles above but down flow is disturbed because particles are then tightly compacted due to pressure from above.

viii. Pressure variation inside of aquifer tends to pump water up through natural non return gates.

ix. Whereas above components are naturally formed, water can be pumped up through cavities but what force is there to vibrate so heavy thing of a mass like a mountain?

Alternative Concept: An independent mountain rock which is cracked at the bottom is shaken once a day by the Sun's gravitational force which is applied directly above in the daytime and applied directly from the down in night. That additional pressure due to variation of mountain load applied upon the confined aquifer can do pumping up water through the naturally formed non return ports activating a mountain fountain.
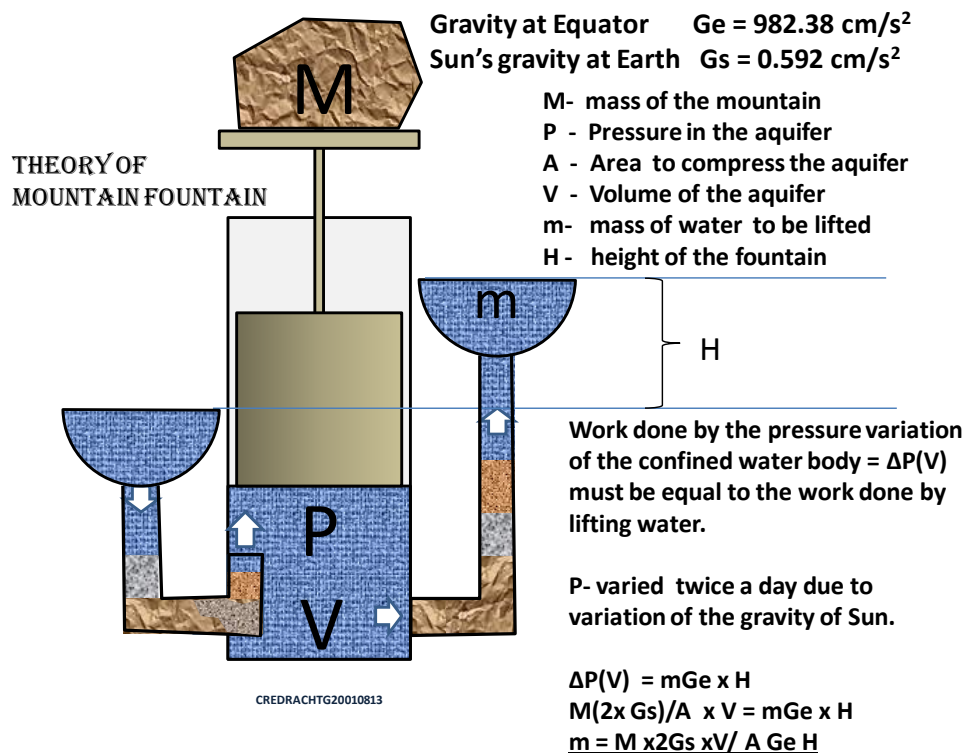
Gravity at Equator   Ge = 982.38 cm/s²
Sun's gravity at Earth   Gs = 0.592 cm/s²

M- mass of the mountain
P - Pressure in the aquifer
A - Area to compress the aquifer
V - Volume of the aquifer
m- mass of water to be lifted
H - height of the fountain

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Work done by the pressure variation of the confined water body = ΔP(V) must be equal to the work done by lifting water.

P- varied twice a day due to variation of the gravity of Sun.

ΔP(V) = mGe x H
M(2x Gs)/A x V = mGe x H
m = M x2Gs xV/ A Ge H

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FIGURE-02

04. Typical Calculation for Yield of fresh water from a Mountain Fountain:
Known data:

1. Earth's Gravity at equator =   982.38 cm/s² ≈ 10m/s
2. Sun's Gravity at Earth   = 0.592 cm/s²   ≈ 0.006m/s

Assumptions:

1. Weight of the mountain above the aquifer = 10^9 metric tons
2. Area and depth of the confined aquifer are 10,000 m² and 1m
3. Elevation of the mountain fountain =50m (high above the bottom)

Computation:

Total variation of weight of the mountain per day = $[(10+0.006)-(10-0.006)\text{ms}^{-1}] \times (10^{12}$ kg$)$

$= [2 \times 0.006 \text{ ms}^{-1}] \times (10^{12}$ kg$) = 1.2 \times 10^{10}$N

$= \underline{1.2 \times 10^9 \text{ kg;}}$

Work is done when a controlled volume of a fluid is subjected to a pressure variation, W=ΔP(V)

Therefore total work done per day by the confined aquifer=(Pressure variation) x (volume)

$= \underline{\dfrac{(1.2 \times 10^9 \text{ kg} \times 10\text{m/s}^2)}{10,000 \text{ m}^2}} \times (10,000 \text{ m}^2 \times 1\text{m})$

$= \underline{1.2 \times 10^9 \text{ Nm;}}$

Work done to lift 'M' mass of water to a height of 50m for the fountain = $(M$ kg$) \times (10\text{m/s}^2)(50\text{m})$

$= \underline{500M \text{ Nm;}}$

Both work done must be equal if energy loss of the natural pumping device is not considered.

$500M \text{ Nm} = 1.2 \times 10^9 \text{ Nm}$

$M = 1.2 \times 10^9 \text{ }/500$

$= \underline{2.4 \times 10^6 \text{ kg}}$

Therefore mean flow from the fountain at 50m elevation = 2.4×10^6 L/day

$= 27.8$ L/s

05. Conclusion:

1. Then one can question "why don't Moon's gravity do the same thing?" But in comparably with the Sun's gravity at Earth (0.592 cm/s^2), the Moon's gravity at Earth (0.003 cm/s^2) is negligible.

2. However the confined aquifers must be full of water always or unless the natural machine would not work and therefore water sheds must be well preserved by forestation to keep soil moisture content at an appropriate level.

3. Perhaps there could be manmade mountains upon water logging areas to create streams in future, if the phenomenon is comprehensively used to develop natural pumping of water but water budget of a terrain could not be changed by man because the terrestrial rain pattern cannot be changed.

4. However it could not be only the variation of Sun's gravity but another possibility too is there which is susceptible for activation of mountain fountains. That is nothing else but the gravitational wave which hits upon masses and vibrates them at a very high frequency of about 10^7 per second. It has been explained as 'Static Work Done by Gravity' by the expression '**Ws= mG^2/8N**; where m-mass, G-acceleration of gravity and N=10^7 the frequency of gravitational wave. [please refer 'Theory of Gravity Deviation'/**Space Dynamics-V2**/2009 at www.world-mysteried.com under guest writer Cyril Gamage or www.cyrilhtgamage.com]

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