

*The Temple of Solomon Could not Stand
On its Water Tower*

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**THE PRINCIPLES OF
THE WATER CONVEYANCE SYSTEM
OF THE TEMPLE OF JERUSALEM**

**THE FIRST ARCHAEOLOGICAL
EXPLORATIONS AND SURVEYS
IN THE SUBTERRANEAN BEDROCK
OF THE HARAM**

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1/ The Moral Finality of Worship in the Temple of Jerusalem reposed on the community of Israel's constant necessity of Purification so that they were in constant compliance with the Fundamental Contract of the Ark of the Covenant, first protected and then perpetuated in the Holy of Holies.

The Purification, by which the High Priest was immersed in the Waters gushing from a Spring, represented the Quintessence and Supreme Affirmation of the Highest Moral Purity and, as a consequence, its obligation was extended to the whole Hydraulic System of the Temple.

Thus the Inventors and first Builders of the gigantic Hydraulic Installation for the Sanctuary of the Jews were affronted with several simultaneous problems, including those of religious, theological, climatic and geological orders, to which were added all the problems related to the technical conception of a coherent and efficient Hydraulic System.

These different problems and the principal means of their solutions had been studied as follows by the antique Hydraulic Engineers and Priests :

-A- It was imperative that the whole Concept of the Sanctuary's Hydraulic System was organized around a continuous Supply of Living Spring Waters.

The only Springs situated at an altitude greater than that of Jerusalem, and sufficiently abundant and unvarying in volume, were those that could be tapped at the watershed between Bethlehem and Hebron.

All the waters of those Springs were consequently brought together and stored in the region around Etam, situated at approximately **780-790 metres** above sea level.

- The average elevation of the Cisterns situated in the rocky underground of the Haram are at approximately **720-730 meters** above sea level. -

-B- All of the Spring Waters could only be carried by gravitation to the Sanctuary of Jerusalem through the construction of Aqueducts that included mostly **channels exclusively cut in the rock**, tunnels cut into the rock, or bridges of stones cemented crossing valleys and ravines.

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-C- This elemental and theological supply of Living Spring Waters, in spite of the abundant flow of waters in certain months, would have revealed insufficient to satisfy the immense and constant needs of the Temple in Purifying and cleansing Waters with an adequate head of pressure throughout the year, because of the alternating periods of rain and possible melting snow with long and/or very dry periods.

-D- As a consequence to make up for the climatic deficiencies, Cistern-Reservoirs that could collect and store large quantities of rain waters were cut into the layer of bedrock situated upstream of the site where the Temple stood.

The whole of these subterranean Cisterns in the bedrock that lay beneath the Haram (ancient Jewish Citadel) could store up to **fifty million litres of waters**.

-E- But when the rain ceased to fall, this stored waters, coming from rainwater streams, immediately ceased to be waters of superior degree, as to their potential power of Purification, and further all these waters were held in static cistern-reservoirs and could have been declared totally impure by the least introduction of impurities, which was almost inevitable, where a climate of theological emulation and permanent overbidding reigned concerning the different possible interpretations of the *Torah*.

-F- It was under these conditions and in order to be in perfect and irreproachable compliance with the Prescriptions of the *Torah* that the Inventors and Builders of the Temple underground Hydraulic System were obliged to conceive a Structure :

a/ that would ensure the continuous Flow of the Waters stored in the underground Cisterns, in successive cascades,

b/ and above all that would confer on every drop of all Waters the Supreme Degree of Power of Purification by constantly fecundating all the Waters with the perpetual Flow of Living Waters originating from the Etam Springs.

-G- From the technological point of view, this vast System for the Supply of Waters to the Temple was governed by two essential ancient Hydraulic Principles :

- From the most ancient times these two Essential Principles of Conveyance of Waters had been discovered and applied in an empirical fashion by almost all the first Civilizations - : These elementary Principles that always guided the first builders of hydraulic systems in Antiquity were :

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a/ The **impermeability** of the container was indispensable for the circulation and storage of waters.

In this respect the bed rock of Judea and Jerusalem was a very solid guaranty in space and time, up to the present day, when its characteristic still bear witness to these everlasting qualities.

b/ The greatest meticulous attention was given to the slope of the waters course, where the difference of elevation was the sole means available for ensuring the circulation of waters by simple gravitation.

-H- The specific conditions related to the Supply of Waters for the Sanctuary in Jerusalem were in addition required to conform with specific Regulations related to the constraints of Religious Prescriptions.

The symbiosis of these early antique Hydraulic Principles and of the Judaic Prescriptions resulted in a totally innovative and unique **Hydrodynamic Concept** :

This System invented was designed to confer on **all the waters**, which were stored in the rocky underground of the Jewish Citadel (nowadays Haram) which overlooked and protected the Temple, the **Supreme Qualifications and Purifying Virtues of the Living Waters from the Etam Springs**.

It is from this indisputable Principle that a precise lay out of the different elevations above sea-level resulted, both for the Aqueducts and for the dispositions of the Cisterns in the underground bedrock of the Jewish Citadel (Haram) situated upstream of the Temple as well as for the different conduits in which the waters circulated.

This vast underground System therefore ensured a continuous Fecundation of all the waters that circulated in the System bringing them together in an unending symbiosis within the same homogeneous and Purifying Flow.

In a certain fashion, other than the knowledge of Hydraulic Technology shared with other ancient civilizations, a specifically Judaic vigilance was applied down to the last detail by the Jewish Inventors and Engineers for the design and construction of the Temple's Hydraulic System, in exactly the same way as the Architectural Design of the Temple and the organization of its Rituals had been determined, in scrupulous and meticulous compliance with the inescapable Obligations laid down in the *Torah*.

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2/ Without the unexpected epic of the Exploration by the Archaeologists of the 19th century no scientific knowledge as to the organization of this unique Hydraulic System would exist, that is to say, a System that was built by the founders of the Jewish Sanctuary, and was maintained and constantly improved through the ages up until the destruction and loss of the Temple.

By a kind of archaeological miracle this System built into the bedrock of the Haram is the only remaining and relatively intact part of the Jewish Sanctuary that has otherwise totally disintegrated and evaporated in the mists of time.

Until the 19th century, though it had been relatively feasible for Westerners to explore and study, with the necessary approval, the surrounding areas of Jerusalem and the aqueducts that carried waters to the presumed site of the Temple, the exploration of the Haram underground itself was totally impossible, as the Sanctuary of the Muslims was strictly forbidden to infidels, and enforced by on the spot conversion to Islam or by instant death for non-Muslims who contravened this Edict.

Further the Haram was considered as sacred by the Muslims and besides the contemplative and admiring attitude of the traditional pious pilgrims, all systematic scientific exploration or excavations of the Haram's underground, even by Muslims themselves, would have been immediately interpreted as a sacrilege by the Religious Authorities.

In effect beliefs solidly anchored by centuries of consolidation had established the sacred rock of the Umayyads, as the spot where Mohammed rose up to heaven to speak with the Jewish Prophets of past ages, and from where Mohammed on his death had ascended into Heaven.

Further popular legends recounted the underground was haunted by djinns, good or evil genies, but who, at least, had been the first creatures outside of Mecca to have recognized Muhammad as the Prophet, and had converted to Islam.

Cistern-Reservoir n°8, the 'Great Sea' of Solomon, was the particular subject of many varied and inventive Muslim legends.

However, some realistic accounts by Muslim pilgrims over the centuries, up until the 19th century, described the underground Cisterns of the Haram.

These accounts do not constitute by any means scientific descriptions but certain evocations are sufficiently documented and prefigure the detailed studies and measurements that Western Archaeologists were to make in the 19th century.

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Amongst these different Muslim authors, Muqadasi can be cited (circa 935), Nasir-i-Khuraw (circa 1047), Al-Umari (circa 1347), Suyuti (circa 1470) and Mujir-al-Din (circa 1496).

Though the description of the Cisterns in these Muslim texts are more often simple enumerations with a few laconic indications, a text of Naisr-i-Khusraw, in particular, has the interest of being a little more detailed, as the following extract shows :

The Travels of Nasir-i-Khusraw to Jerusalem : 39 : Extract :

In the south wall (of the Haram Area) is a gate (double gate) leading down to the places for the ablution, where there are running waters at the basis of the southern rampart, below Al-Aqsa mosque.

When a person has need to make the ablution (before prayer), he goes down to this place and accomplishes what is prescribed : for had the place (of ablution in running waters) been set outside of the walls of the Haram, by reason of the great size of the Haram Area, no one could have returned in time, for the prayer. (in those times the area beneath the Al Aqsa mosque, at the external basis of the rampart, was part of the Haram.)

The roofs of all the buildings in the Haram Area are covered with lead. Below the ground-level are numerous tanks and waters-cisterns hewn out of the rock, for the Noble Sanctuary rests everywhere on a foundation of live rock.

There are so many of these cisterns that, however much rain falls, no waters flow away to waste, but is all caught in the tanks, whence the people come to draw it. They have constructed leaden conduits for carrying down the raining waters from the surface, and the rock cisterns lie below these, with covered passages leading down therein, through which the conduits pass to the tanks ; whereby any loss of waters is saved, and impurities are kept there from.

At a distance of three leagues from the Holy City I saw a great water-tank (Solomon's Pools, near Etam which, in reality are three superposed reserves) where into pour all the streams that flow down from the hills. From thence they have brought an aqueduct that comes out into the Noble Sanctuary.

Of all parts of the Holy City this is where waters are most plentiful. ...

3/ The first and unique opportunity for Western Scholars and Specialists to study the rocky underground of the Haram occurred in the 19th century. This unique and brief occasion in the History of Jerusalem was the conjunction of several factors: (Reminder :)

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-A- There was the growth in power of the Western Democratic Nations issued from Judeo-Christianity with their concomitant technological and scientific progress.

-B- The parallel decline of the Ottoman Empire, founded on Islam, which had driven its voracity to conquest but had paralyzed its social evolution, whilst this same evolution appeared progressively as the necessary condition for all real dynamic progress in other regions of the world.

-C- An increasing call by the Muslim authorities for Western technology to solve their problems of civilization and demographic growth, which had become more and more acute in their lands, due to the incapacity and blockage of the Muslim society.

-D- In the case of Jerusalem, where, since the most ancient times, the supply of waters had never constituted a real problem, the hydraulic and sanitary conditions under the Muslim administration had reached such a disastrous state that the City Authorities were forced to appeal to Western experts.

-E- It was through this breach that the gates of the Haram opened, in particular, to the Officers of the British Royal Engineers.

These Officers other than their mission as specialists in engineering, discretely dissimulated another objective : They were the representatives of the "*Palestine Exploration Fund*" sponsored by Queen Victoria, and dedicated to a profound exploration of the Holy Land.

-F- It is with this double objective that the British Officers undertook their task designed to be as extensive as possible, that of the *Palestine Ordnance Survey*, which is to say a detailed topographical and geographical Survey of the whole of the territory of Palestine, and, in which, Jerusalem and the principal holy sites were studied from their historical, religious and archaeological aspects.

4/ More specifically, and concerning this present Study, four principal persons collected and transmitted the unique detailed information and data without which it would have been impossible to locate the real site of the Temple of Solomon.

These four persons included :

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- three officers of the Royal Engineers assigned to the *Palestine Exploration Fund* : Charles Wilson, Charles Warren and Claude Reignier Conder ;

- a German architect and researcher, Conrad Schick, who became a representative of the *Palestine Exploration Fund* and of its equivalent German organization.

As will be seen below infra these four persons localized a great number of Cistern-Reservoirs in the rocky underground of the Haram, measuring with the greatest possible precision their dimensions and levels, noting the nature of their construction and describing in detail the vestiges of channels and conduits connected to this Hydraulic Storage Network and Water Conveyance.

Those three Officers and the German architect had been preceded by other explorers, whilst, at the same time, others also helped or competed with them, all using the most diverse ruses or means of pressure on the reticent and suspicious Muslim authorities, in their common goal : the first Archaeological Exploration of Jerusalem.

Thus, in addition to these four key persons, we can add, amongst many others, Catherwood, Robinson, Barclay, de Saulcy, Pierotti and de Vogüé.

5/ The rational and systematic scientific exploration of the Haram's rocky underground was carried out over 25 years, a relatively short period of time in archaeological and historical terms, between approximately 1850 and 1875 as a result of a passing combination of Islamic tolerance, indifference or weakness.

The Western Archaeologists of this period used many different ruses to achieve their goals, even at the risk of their own lives.

In particular was the intrepid Warren whose efforts often reached the limit of Muslim tolerance when he dug shafts from outside of the Haram and from the bottom of these shafts tunneled underneath the ramparts into the Haram's underground itself.

This dangerous works were undertaken with the sole use of candlelight or burning torches before the introduction of magnesium lamps and without the least protection against the possible cave in of friable layers, or ancient collapses around the workers.

And when the Muslims were alerted by suspicious noises that betrayed secret underground work, they immediately displayed their anger by menacing, for instance, Warren with reprisals, who was then forced to distribute bakhshish and immediately cease his excavations in progress.

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6/ Before examining this unique and complete exploration of the Haram's underground and its Hydraulic System, a fundamental question is absolutely necessary for the comprehension of the present Study :

How could these different, daring and talented Archaeologists with their immense scientific erudition :

- carry out a detailed Survey that brought to light the irrefutable proof that the Temple of the Jews lay downstream of its Waters Reservoir, that is to say that the Temple had not stood on the surface of the Haram above its Water Tower ?
- and not take themselves into account their own detailed observations and the meticulous results of their scientifically established Survey ?

The beginning of an answer to these crucial questions lays in the fact that these Archaeologists and Explorers had been under the influence throughout the entire course of their lives to religious tradition and inhibitions, which were transmitted century after century, relatively to the topographical continuity of the site of the disappeared Temple of the Jews.

Indeed this same presumed site had been successively designated as cursed by the Christians, then claimed by the Crusaders to resist Islam, and finally and definitely appropriated by Islam as having been the genuine site of the Temple.

And the Jews themselves had confirmed this Postulate by inventing progressively the Cult of the Wailing Wall.

On the subject of such collective subconscious inhibitions of the Scientist Community, it is useful to note that almost all the 19th century actors, in the acceptance or revival of this historic tradition by biased archaeological observations, had in their minds, consciously or unconsciously, the ultimate ambition of reaching the summit of the Establishment's Hierarchy of their time, and were, therefore, wary not to question centuries established Certitude.

- It is how, for example, Count Melchior de Vogüé, the author of a Monograph, the title of which constituted by itself a governing principle, *'The Temple of Jerusalem, A Monograph on the Haram ech Cherif'*, in which figured a drawing that reconstituted the Temple standing on the surface of the Haram, was elected to the French Academy and became Ambassador to the "Sublime Porte" of the Ottoman Empire.

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- As to Wilson and Warren they were promoted to Generals and knighted by Queen Victoria, who grandly appreciated their conservatism, and judged them worthy of becoming the Guarantors of the intangible Values of British Power and of the Anglican Faith, by raising them to the ranks of the ancient nobility of Great Britain.

Thus, for instance, when a controversy broke out concerning the authenticity of the site of the Holy Sepulcher, with some Scholars maintaining that it was within the walls of the antique Jewish Jerusalem, meaning that it was impossible that Jesus had been executed and buried there, Wilson who had become Head of the *Palestinian Exploration Fund*, energetically supported the traditionalists and this "intolerable controversy" soon faded away.

7/ An account of the Archaeologist Felicien de Saulcy, also of the French Academy, demonstrates the paradoxically astonishing way, from a scientific point of view and extremely revealing from the psychoanalytic point of view, how this irreducible inhibition in the collective subconscious affected all the Western Explorers who had the privilege of investigating the Haram and its surrounding area, during the unique golden age of archaeological exploration in Jerusalem, i.e. between 1850 and 1870.

Further this account of Felicien de Saulcy, in the form of a chronicle, has the interest of illustrating the atmosphere that prevailed, at that time, and in this particular domain of archaeological explorations in Jerusalem :

In 1863, that is to say before the elevation measures of the underground bedrock had been established by Warren for the *Palestinian Exploration Fund*, Felicien de Saulcy, guided by a remarkable instinct, had the intuition that the crest of the bedrock on which the Haram is built, descended from its highest point (at the Dome of the Rock) and passed the Triple Gate situated approximately in the centre of the southern rampart of the Haram. (See Map)
Effectively the excavations and the survey carried out a few years later by Warren showed that on both sides of the Triple Gate the bedrock descended rapidly, to one side towards the Tyropean Valley on the west side of the Haram, and to the other side towards the Kedron Valley on the east side of the Haram.

In this amazingly **revealing** text of Felicien de Saulcy, we have brought together into one single account the slightly different passages that figured in the two first editions of his Work entitled '*Travels in the Holy Land*' :

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Félicien de Saulcy : *Travels in the Holy Land* :

Excavations to the south of the Haram-ech-Cherif, at the foot of the Triple Gate :

I will not recount the vicissitudes by which I had to go through to obtain, even with my Firman (Authorization from the Grand Vizier) to commence excavations at the foot of the Haram al Cherif.

It was necessary to obtain the help of my Muslim friends to force the Sheikh of the Schafi Sect to stop his violent opposition that he had made to the Pasha (of Jerusalem) to the execution of my project. His fellow religionists finished by convincing him that I had no other goal than to demonstrate the glory of the works of Solomon, and he raised no more objections.

As soon as everything was said the Pasha gave his consent on condition that one of the Effendis of the Medjlis would be present at the excavations.

It did not matter and, Thursday the 26th November, Hanna Carlo came to announce that I was free to commence my work, on the condition of paying off, of course, the owner of the cabbage field where I was going to install my workers. From the next day they were at work under the supervision of one of the Cheifs of the Zapties of Serai and watched over by the Effendi named Chams el-Din. On arriving I found Chams el-Din like extremely upset !

He detested this excavation and was appalled that they had allowed a Christian dog to touch this venerable and venerated land...

Felicien de Saulcy then engaged in a vast operation of seduction and generalized corruption, and all resistance to the work of excavation finished by disappear :

With cigars, promises and coins, everybody including the owner of the land was with me...After the first day, they came to tell me they had found the rock (reached the bedrock) and a shaft blocked by large stones piled in...

The base of the Triple Gate was uncovered over a length of 20 metres and this large base that I called Solomonian lay directly on the rock with perfect joints.

I stopped there. A few metres further (along the southern rampart of the Haram) I would have come onto at an enormous layer of rubble more than 20 metres deep over the bedrock...The shaft (once cleared) was 4,5 metres deep and ended in a gallery only 60 centimetres wide, cut like a tunnel into the rock, or lined by large blocks of stone cemented.

This gallery had a steep slope that went, on one side, to the north north-west (rising) towards the inside of the Haram, and on the other side (going down) towards the south and bifurcating into (two branches) over a length of two metres.

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There the two branches came together again and formed a kind of square chamber two metres on each side ; from which the bifurcation recommenced descending towards the south.

- The west branch was almost immediately blocked up by dense rubble and stones of all kinds ;

- the branch to the east was going towards Siloah (situated south down at the bottom of the Ophel) but was blocked up after a distance of 5 metres like the first branch.

From the small square chamber going up towards the Haram (upstream) a second gallery was leading to the north north-east direction, about one metre wide, and with a rectangular trench allowing waters to flow.

The bottom of this trench was covered, like the ground in all the other galleries, by a sparkling white crust, very friable, that crunched under foot like frozen snow.

Then a third gallery was found cutting the first and continuing in the same way (on one side upwards) to the inside of the Haram, and on the other side (going down) towards the Kedron Valley (bordering the Haram to the east).

Describing this third gallery : From the hole in which it ends, it goes up to the north, a few degrees west into the inside of the Haram, and after a distance of 6 metres cuts the second gallery, beyond which it continues its course (going up towards the north).

On this side of the same point where the hole opened out, this third gallery ran to the east, that is to say almost parallel to the large wall (south rampart) of the Haram (going down) a few degrees south over a length of 9 metres, where it opened on to a rectangular chamber 3 metres long by 1.5 metres wide.

All the south side of this chamber was filled with piles of large stones that had collapsed there, beyond which the gallery continued its path directly (down) to the south, over a length of 5 metres, then it formed a kind of S about 4 metres in length. To the extremity of this curve, the gallery, which had to that point been 1 metre wide, narrowed to not more than 0.5 metre wide.

It continued for 2 metres (sloping down) in a southwest direction, and then turning brusquely at a right angle where it continued in a downwards direction towards the Kedron over a length of 9 metres, at the end of which it was completely blocked up (by another collapse of stones)....

When the English Officers (of the *Palestine Exploration Fund* and *Ordnance Survey*) arrived in Jerusalem, their first job was to check what I had published in my exploration at the foot of the Triple Gate :

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I do not know whether their job was to check if I had put some whimsical ideas in the account of my explorations. But what I do know is that, by repeating my excavations, they had been able to verify the exactitude of all my observations, exactitude which they mentioned in their report.

Now I shall ask what could have been the purpose of these complicated galleries, if it had not been to evacuate the Sanctuary (of the Jews) of the large quantities of waters that had to be brought there and whose quantity was indispensable to wash the Holy Courts and clean away the detritus of all kinds that obviously accumulated there on certain Jewish Feast days, when thousands of animals were slaughtered and butchered in a few hours.

Without continuous washing with large quantities of waters the surroundings of the Temple and Sacrificial Altar would have become in a few hours, under a sky such as that of Jerusalem, a real source of pestilence.

Eusebius, in his *Preparation for the Gospels*, informed us of a very interesting text relative to the Temple's Irrigation System (*Book IX Chapter XXXVIII, the Cologne edition of 1688 page 453*) :

Here is its translation (by de Saulcy himself) :

"Aristeas in the book he had written on the Interpretation of Judaic Law spoke of the running waters in the City of Jerusalem :

The Temple he said faced to the east with its back to the west. The floor was entirely paved and this paving was at certain points sloping to facilitate the flow of waters which was necessary to provide to wash away the blood of the victims, whose numbers reached several thousand on important feast days. In order to do this an immense supply of waters was always held in reserve : it was supplied by an abundant spring that came from the bowels of the earth and which divided into a number of veins brought the waters to the desired point from where it gushed forth. In addition these canals, admirable and greater than can be described, developed underground, and as far as can be judged from what can be seen, make a tour of 5 stades (1 kilometre) around the Temple. From these canals are numerous conduits arriving at each side of the court from which waters flow to every corner. He (Aristeas) added that all these conduits are connected, partly to the paved floor and partly to the walls themselves (of the court of the Priests) by lead pipes covered with cement, arranged with extraordinary skill and extreme care..."

I shall be allowed, I hope, to acknowledge that these galleries, that I have discovered going out from the Haram to the south (downhill), are indisputably some of these underground canals that Aristeas spoke of, and which evacuated towards the Kedron, the waters which had been used to clean the Temple.

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And since these canals were indispensable the day when Solomon consecrated this Temple, I hope their antiquity will not be contested.

Thus, with great lucidity and talent, Felicien de Saulcy uncovered the System of Conduits designed by the ancient builders of the Temple's Hydraulic System that enabled waters to freely **gush out onto the Court of the Temple** with the greatest possible natural head of pressure afforded by gravitational force.

But when Aristeeas spoke of underground conduits which **SUPPLIED the Court of the Temple with jets of water under pressure**, Felicien de Saulcy (as all the following Archaeologists including Warren will also do) interprets immediately : "**underground conduits which EVACUATED** towards the Kedron the polluted waters which had been used to clean the Temple."

This sophisticated Hydraulic System, explored by Felicien de Saulcy, and cut into a steeply sloping bedrock was composed of :

- **-a-** successive bifurcations of two ramifications that alternatively connected themselves together, and then separated themselves ;
- **-b-** intermediate chambers for accumulation of waters arranged in cascade so as to increase the pressure ;
- **-c-** conduits with sharp right angle elbows probably for the same usage ;
- **-d-** and these conduits tapered thus increasing the force of the jets outgoing.

So it appears logical that the Temple could only be situated **downstream** of such an elaborate System, specifically designed for the propulsion of high volume waters jets under a strong natural head of pressure (and preceding in its antique mechanical way the modern karcher systems).

Therefore this elaborate Hydraulic System discovered by de Saulcy had, in no way, be designed for what, on the contrary, should have been a very straight and as large as possible lay out for the quickest *evacuation* of big quantities of waste waters, blood and dejections.

Moreover, in 1863 de Saulcy at least knew that the giant underground Cisterns called the '**Great Sea**' and the '**Sea**', (numbered n°8 and n°7 by Warren) which could stock twenty million litres of waters, were built **upstream** in the same layer of bedrock, in the south of the Haram, not far from the ramparts where the conduits explored by de Saulcy exited.

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Alone the **Great Sea** and the **Sea** situated upstream could have been considered by de Saulcy as potential Reservoirs for the 'immense Supply of Waters', which, according to Aristeas, was necessary for the Rituals of the Jewish religion.

Now in spite of this overwhelming evidence observed and analyzed in the greatest detail, and even physically at hand for Felicien de Saulcy, and in spite of his great learning and direct knowledge, from, for example, the Greek text of Aristeas, an **inhibition** derived from the collective subconscious and the almost congenital feeling of the Archaeologist Explorer, made him, **contrary to all logic**, both visual and rational, position downstream of the presumed site of the Temple, that is to say downstream from the Dome of the Rock, the sophisticated Waters Supply System that he was in the course of exploring, and which, by the unchanging effects of gravitation, could have been able only to serve the Sanctuary situated **downstream** of this sophisticated Hydraulic System, and never back upstream, and upwards to the surface of the Haram.

To this effect, Felicien de Saulcy subconsciously replaced the Waters Supply System with its spouts situated upstream of the Temple, -as it was in fact described by Aristeas-, by a cleaning system for the evacuation of the offal and dejections that would have been installed downstream of the Sanctuary...

Now, this downstream waste evacuation system had not retained the least attention of Aristeas, to whom the Archaeologist had made reference to, because the Jewish Egyptian traveler had exclusively marveled over the **water supply** to the Sanctuary.

And in any case the evacuation system for detritus in no way required an extremely sophisticated System and so specifically designed with special spouts from which waters could surge forth under a high pressure such as that de Saulcy was just discovering at the foot of the southern ramparts, which is to say **downstream** from the Haram. Furthermore it could be remarked that such a complex system whose conduits were designed to evacuate detritus from the Temple that tapered towards the outlet spouts would have no doubt been blocked up almost immediately.

But whilst the inhibitions of de Saulcy prevented his faculties of analysis from functioning it can be observed that his subconscious intuition **altogether** inhibited and awake was so sharp that the clever and talented Archaeologist could not avoid noting the immaculate whiteness of the accumulated mineral deposits that remained on the sinuous and tangled network of conduits that he had discovered.

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It could be supposed, at least in imagination, that the piles of centuries old detritus, of blood and urine would have probably not offered to de Saulcy's eyes a virginal whiteness 'like frozen snow'.

Because, in fact, what the Archaeologist had the intense emotion of discovering were the ancient vestiges of the immaculate Living Spring Waters that were to gush out from the spouts, day after day, from the Reservoirs beneath the Haram onto the Court of the Temple of Jerusalem, situated forcibly downstream of the Haram, and not upstream of its Water Reservoir, which is to say not upstream of its "Water Tower".

8/ This quite absurd theory of the pre-eminence of a System, designed for the evacuation of detritus, and built inside the bedrock of the Haram, had been initiated by the archaeologist Ermete Pierotti, whose explorations had shortly preceded those of Felicien de Saulcy, as an explanation to resolve the prefixed ideas of the 19th century Archaeologists.

This explanation by the Italian engineer had a certain importance as it was to influence also the work of Count Melchior de Vogüé and his reference work

'The Temple of Jerusalem, A Monography of the Haram ech Cherif'.

In fact these Archaeologists who situated the site of the Temple of the Jews on the site of the platform of the Dome of the Rock, or in its immediate surroundings, were often embarrassed to discover, as the explorations progressed, the growing amplitude of the Hydraulic System that extended **downstream to a great depth and downhill well beyond the presumed site of the Temple.**

It was in this way that Ermete Pierotti was led to establish a theory that was to influence all lines of reasoning relative to all the first discoveries in the Haram's underground, or more exactly that was to neutralize all the logical demonstrations that should have resulted :

According to Pierotti the main concern, not to say the unique obsession of the ancient Jewish Hydraulic Engineers who had conceived and built the complex System, had been to ensure that the blood and detritus from the sacrifices that took place at the site of the Dome of the Rock, were evacuated by conduits to a point downstream of the Kedron Spring, so as not to pollute the Spring Waters.

Count Melchior de Vogüé employed the same argument to situate the Temple of the Jews near to the Dome of the Rock, above an underground passage (n°1 according to Warren) and which was, according to this theory, a vast Cistern for the collection of the sacrificial victims' blood, that is to say an antique cloaca... (This Cistern was in fact, in its final form, a later construction dating from the Umayyad period).

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Through these different theories that can be qualified as unconscious intellectual diversions, the vast Hydraulic Installation designed for the storage and flow of waters towards the south and downstream of the Haram, was eclipsed or masked, by all these scholarly nineteenth century Archaeologists, as a System for the evacuation of the cesspools, resulting from the vast numbers of sacrifices practiced by the Jewish Priests that were supposed to have taken place on the exact site of the Dome of the Rock.

The idea of huge cloaca keeping carefully stocked all the fetid detritus of the sacrifices right beneath the Jewish Temple where dwelt the Divine Presence (Shekinah), is a very strange and rather absurd idea, which was nonetheless accepted by almost all the 19th century Archaeologists, stuck, as they were, by the irrefutable reality of the topography of the Haram, and duped by a false tradition which was the result of the ultimate victory of the pagan God-Emperor Hadrian.

In reality and if in fact, one or two of the conduits, simple, large in section, and rectilinear, facilitated the evacuation to the Kedron Valley of the blood of the animals sacrificed in the Temple. It is evident that this evacuation by large conduits, simple and direct, posed no technological problem given the abrupt slopes of the site, whilst on the contrary, the storage and continuous delivery of Living Purifying Spring Waters to the Sanctuary, and cleansing waters under pressure for its Court, constituted a real and colossal technological **challenge**, for which the Jewish engineers of Solomon had consecrated all their energy and creativity.

9/ The three British officers of *the Ordnance Survey and the Palestinian Exploration Fund*, Wilson, Warren and Conder, together with the German, Schick, in no way, sought to mask the reality of the Hydraulic System that lay in the bedrock of the Harem : On the contrary, they scientifically explored it in great detail, surveying the levels and dimensions with as much rigour as the circumstances permitted.

For these four key Archaeologists, to whom is owed the precise knowledge of the Temple Hydraulic System as it stands today, the Cisterns that were codified and studied, as well as the different associated conduits, in their vast majority contained and carried waters and not waste matters.

But for these four Archaeologists as for their predecessors or rivals, the outrageous idea of daring to question the proclaimed site of the Temple on the Haram, an irrevocable Dogma-Postulate, was totally excluded.

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In consequence all these nineteenth century Archaeologists rallied to another important idea, which became obligatory : that the waters necessary for the Temple Rituals were drawn with buckets or other recipients from the underground Cisterns, whatever absurd distance or depth from the supposed site of the Temple, and whatever unrealistic conditions linked to this supposed procedure.

Consequently the only specific reference mentioned in the *Tractate Middoth* was retained by the Archaeologists, that is to say a particular reference which indicates that the waters necessary for the Temple were drawn from one well.

Now this particular reference seriously contradicts other descriptions in the same *Tractate Middoth*, for example those concerning the mikvehs for the Purification of the High Priest, clearly situated on the upper storey of the Parvah Chamber and of the Water Gate, or those detailing the supply to the Priests' baths and Laver and to the baths in the Lepers Chamber : All these precise descriptions seem to indicate that the unique reference to a well is a later and isolated interpolation, following the Babylonian Rabbis' Aggadic invention of a colossal wheel with which an Herculean Priest was supposed to have lowered and raised daily, at a depth of at least twelve metres, a one hundred tons bronze Basin for Purification...

In fact this interpolation in *Tractate Middoth* had also probably been put in order to rectify observations that the Jews had been able to make themselves on the Haram of the Muslims, in the early times.

On this point it is necessary to recall that a few Jews had been appointed to the cleaning of the Haram Cisterns at the beginning of the Umayyad occupation of Jerusalem : The Jews had then the opportunity to observe, in situ, and with the greatest possible realism, the flagrant contradictions of certain descriptions given in *Tractate Middoth* with the insurmountable topographical Reality of the Haram and of its underground Water System.

Also this most probable introduction of an interpolation into the *Tractate Middoth*, in all good faith, appeared necessary to modify the unavoidable evidence that the waters retained at a depth of twelve metres in the Haram rocky underground could have not possibly been brought up to flow freely by gravitation on the surface above.

It is probably in this manner, that this brief, isolated and incoherent reference, that all waters for the Temple rituals were drawn from one well allowing to haul waters from a single isolated Cistern-Reservoir, was introduced into the *Tractate Middoth*.

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In fact a single such specific mention was all that was necessary to maintain a certain logical coherence to the topography of the Muslim Haram, associated with the presumed site of the ancient Jewish Sanctuary,, and this single interpolation being made to the detriment of all other information cited in the same Rabbinic Literature and in particular in the same *Tractate Middoth*.

Secondarily, it seems rather probable that such wells may have been dug in the underground of the lost platform where the Temple stood particularly during its construction.

But these wells could have provided waters only for a profane use and not for a ritual use : it is likely from such a mention in the *Tractate Middoth* that this unrealistic interpolation was set up with asserting that from one of these wells were hauled all the waters necessary for the Worship in the lost Temple

10/ The descriptions, surveys and elevations recorded relative to the Cistern-Reservoirs, Conduits and Channels in the underground bedrock of the Haram were principally made by Pierotti, Barclay, Wilson, Warren and Schick.

Certain measurements were checked by Conder, in particular the precise elevation above sea level for each cistern and the surface level of the Haram vertically above each respective cistern. (See : Conder Register at Temple Maps)

The Measurements made by these different Archaeologists sometimes diverged, as the conditions under which the explorations were made varied in time, for political and technical reasons :

-A- The work of the Christian Archaeologists was in a general manner of speaking subject to a constant pressure from the Muslim authorities, often obliging them to attend to the most pressing matters, so as to ensure that they collected the information that seemed to them the most essential at a given moment.

Thus, for example, when Warren discovered an opening or new location they immediately proceeded with the preparations for the exploration of the new discoveries.

But sometimes the Muslim Religious Authorities responsible for the Haram, totally hostile to the authorization accorded to the Officers of the *Ordnance Survey* by political Authorities, sealed the openings during the night, so as to prevent the Christian Archaeologists from continuing their profanation of the Haram's underground.

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In the same manner another subtle but also antagonistic game was being played, opposing the Engineer-Archaeologists and the Religious Authorities of the Haram :

The British engineers who had been officially given the responsibility of repairing and improving the water supply installations next to the Al-Aqsa Mosque, had, at times, difficulty in determining whether a conduit was part of the System installed by the Muslims, principally after the Crusades, or if the conduit was part of the vestiges of the Installations from the time of Solomon or Herod.

The Archaeologist-Engineers always pretended that all the underground installations were used, or could be used by the Muslims, whilst the Religious Authorities of the Haram, in spite of the lack of scientific qualifications, remained suspicious and reticent, even obstructive, having suspected that the interest of the *Ordnance Survey* officers went well beyond the simple objective of improving the water distribution system for ablutions areas in the Mosques.

-B- The first Explorers were guided by the light of candles and burning torches, which in the vast and obscure underground system left many places in the half-light or in the dark. Later the explorations were made in the light of magnesium lamps that provided more light but for a very short duration :

Also any measurement being taken were often interrupted by the extinction of the lamps, with the risk of becoming approximated unless the whole procedure was repeated with great effort and even, at times, considerable risk.

-C- Concerning the Cistern-Reservoirs, which were not conceived in a regular geometric shape, the terminology used by each Archaeologist to localize, measure and define a specific formless location, may have induced certain errors, confusions or contradictions.

- In the same manner certain data that could seem evident to an Archaeologist were not mentioned whilst the same data was detailed by another.

It is why, for example, the height between the surface of the Haram and the summit of the roof of a cavity was not always expressed in the same way by Warren and by Schick.

In addition, it was at times difficult to discern through certain recorded figures whether the thickness of the rock roof of the cavity was included in the total height or if it should be added, estimated or calculated.

-D- The bases of the Cistern-Reservoirs, for the most part abandoned for centuries and poorly lit during their exploration, were covered by various layers of rubble, mud, stagnant waters and other deposits :

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- The possible work of clearing the floor was practically excluded by the Muslim Authorities, who feared altering the integrity of the Haram underground, including the deformations caused by time.

- Thus it is sometimes difficult to appreciate, in a very precise way, the real elevation of the surfaces of the Cisterns bases :

This resulted in extremely approximate and varied evaluations that prevented, amongst other data, the measurement of the slopes these floors may have had, or determining the existence of conduits connected at the bases of the Cisterns.

- In addition a great number of collapses hid places that would have been essential to explore and each Archaeologist attempted to reconstruct them in his manner by integrating them into his report.

-E- For all these reasons, in many cases, it was practically impossible for the Archaeologists to determine whether conduits or channels existed at the base level of the Cisterns :

Generally the conduits and channels that could be recorded were either situated at a certain height above the base of the Cistern and were visible, or those that had been discovered and explored were situated outside of the Cistern they served.

-F- To conclude on the reasons for certain divergences between the measurements made by the Archaeologists, principally Warren and Schick, it could be noted that a subtle rivalry opposed the two men, which was typical of this period when scholars discovered unknown worlds : and this silent but tenacious competition probably affected sometimes the differences in the announced results :

Which explains, on occasions, the need for choosing between divergent measurements, taking an average, or choosing between the different measurements noting the one that seems the most coherent both from the work accomplished by the Archaeologists and the gravitational logic of the overall Hydraulic System.

11/ The results of all these Explorations and Surveys with the related maps and drawings were published principally in the *Palestinian Exploration Fund Quarterly Statement* that became the *Palestinian Exploration Quarterly*, and in successive works published by these different Archaeologists.

Then finally, in 1884, a book by Warren and Conder collected most of the previous works carried out : *The Survey of Western Palestine*, which included two parts for Jerusalem :

- The Descriptions.
- Detailed maps mostly prepared by Warren.

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In addition, in 1887, Conrad Schick published his own work, where certain measurements concerning the underground Hydraulic System differed from those published by the British engineers.

The title '*Beit el Makdas oder der Alte Tempelplatz zu Jerusalem*' ('*The Haram ech Cherif or the Site of the Ancient Temple as it is Now*'), was probably inspired by the work of Count Melchior de Vogüé, '*The Temple of Jerusalem, A Monograph on the Haram-ech-Cherif*'.

Whenever the texts with data from 1863 onwards, concerning the exploration of the Haram underground, were not contained in these books published by these four Archaeologists, they were, mostly, published in the form of articles or contributions in the Review '*The Palestine Exploration Fund Quarterly Statement*', later the '*Palestine Exploration Quarterly*', and all these texts form part of the Archives of the *Palestine Exploration Fund*, and have been profitably used in the present Study.

12/ The preparation of the first systematic plan of the underground Cistern-Reservoirs, Channels and Conduits of the Rocky Underground of the Haram was undertaken by Charles Wilson in 1864-1865 for the *Ordnance Survey of Jerusalem*.

The official reason for this topographical Survey was the planning of a water supply system for Jerusalem and the Haram, and an efficient system for the evacuation of waste waters.

But in spite of this official mission the resistance of certain Muslim religious leaders did not weaken and provoked, in a recurring fashion, many difficulties for the exploration of the Haram Underground.

In addition, the exploration was made difficult, at times, because it was forbidden to dig shafts or carry out the least excavation work in the Muslim Haram, that is to say real archaeological work. In the same manner scaffolding was totally excluded which meant the Archaeologists had to resort to real acrobatic exploits.

Wilson wrote a sincere account of the first exploration campaign, which has the merits of being open-minded as to the degree of precision of a Survey carried out under such difficult conditions :

Wilson : *Ordnance Survey of Jerusalem : 1864-1865* :

The Cisterns were explored in December and January before the last rains.

The measures were carried out with a yard stick when I was alone and with a surveyor's chain when we were several persons. The elevations were measured with a prismatic altimeter or with a compass.

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But none of these measurements could be considered as perfectly exact because it is not easy to work holding a candle in one hand and with your feet in waters. On certain occasions it was very difficult to determine the exact nature of the vault of the cistern or to be entirely sure of the presence or absence of a conduits outlets or inlets. In addition the candles gave off a very weak light for such immense cavities, and before the arrival of the magnesium from England the winter rains had started and we were obliged to halt the explorations.

Three men were employed for the exploration of the cisterns, an interpreter and two labourers. The most part of the descents into the Cisterns were made with a rope ladder. But in certain cases, for the smaller Cisterns, their inlets were too narrow and this method could not be used : then a knotted rope was tied around the waist and lifting our arms as high as possible we tried to squeeze into the access holes on the surface.

The interpreter watched everything that happened and sent down candles by a cord for this purpose. Certain of these descents were carried out by Doctor Chaplin, who was always ready to join in these explorations ; others were made by myself alone.

It was a big problem to come back up, because the rope ladder often hanging 40 feet (12 metres) swung and twisted in every direction in a very disagreeable way, whilst our clothes were soaked and hindered considerably our legs movements...

After his exploration of Jerusalem and the Haram, Wilson continued a brilliant military career and was rewarded with a Knighthood by Queen Victoria.

After being promoted to the rank of General and Director of the Ordnance Survey, Wilson kept close contacts with the Archaeologists who succeeded him in Jerusalem.

Wilson gave his name to the Arch that was discovered perpendicular to the Western Rampart of the Haram to the north of the Wailing Wall : the Etam Aqueduct that carried the Living Purifying Waters to the Cisterns from the Solomon's Pool, near to Etam, passed over this very important Arch for our present Study.

13/ Wilson's successor, Charles Warren, accomplished a considerable and irreplaceable Work of Archaeological Explorations in the immediate surroundings of the Haram, as well as under its ramparts and in its underground structures.

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Most of the mathematical knowledge concerning the bedrock of Jerusalem and particularly that of the Haram is the result of his extremely meticulous pioneering Work :

Warren established the precise topographical and elevation contours of all the subterranean rock, as well as inventorying all the Hydrographical System of the underground Cisterns, with reference numbers, and all their corresponding Measurements with the greatest precision possible.

Conrad Schick will then hasten to modify (not without good reasons) the numbering of the underground Cisterns :

Nevertheless, in this present work, Warren's numbering system has been exclusively employed in order to avoid all confusions.

In an account published in the Review *The Palestinian Exploration Fund Quarterly Statement*, Rob Roy Mac Gregor gave a description of Warren that shows his almost instinctive and organic enthusiasm as an Archaeological Explorer :

John Mac Gregor : *Palestine Exploration Fund Quarterly Statement* :
1870 : 20

Mister Warren seems in truth to have an essentially underground spirit of mind, and it is really fortunate for him that this very particular aptitude and his duty meet together in the same goal.

Today we visited, privately, the Haram whose splendid green lawns were punctuated by thickets of spring flowers, grouped together here and there around the ancient pillars of marble blocks.

Suddenly Mr Warren decided to raise one of these blocks, and soon the cords, levers and ladders were in action. The old Sheikh responsible for the Sanctuary and sitting on the grass, shook, sighed and groaned, when he saw the Englishman disappear into the great cavern that was the last cistern examined on this spot.

After having measured the underground cavity, by swinging the cord in the dark hole that was lit at the necessary places with light produced by his magnesium, Mr Warren suddenly penetrated into a small hole situated over this cavity and in which a terrier would not have succeeded in entering, and left us not without having joked to the worried Sheikh, who forced a smile, at the same time impressed and frightened by this incomprehensible intruder whom he was supposed to watch.

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After suspense of twenty minutes we heard from far off a joyous 'Hello!' in a totally different direction from his starting point. Suddenly we saw Mr Warren reappear a few hundred metres away where he emerged onto the surface after having followed underground a new passage that he had explored crawling in the greatest obscurity.

In spite of his great enthusiasm, digging and searching in every nook and cranny, it should be noted that at the end of the exploration campaign that took place from 1867 to 1870, Warren, after having inventoried, studied and measured a large part of the Underground System of Cisterns and Conduits such as they are known to us today, declared in 1871:

Warren : *The Rediscovery of Jerusalem :*

Account of Exploration and Discoveries made in the City and in the Holy Land :

There remains an immense amount of exploration work to be undertaken in the Sanctuary.

All the surface drains should be examined, and it is probable that new Cisterns will be discovered...

When he wrote these lines, Warren could not have imagined that the golden age of Archaeological research in the Haram of Jerusalem was to definitively end only four years later in 1875 with the last intensive explorations carried out by his colleague and rival, Conrad Schick.

Schick was to contest the details of numerous measurements carried out successively by Wilson, Warren and Conder (the successor of Warren), but overall no great discovery was to be made after the immense Work of Warren, even though it is possible and probable that other huge Cisterns still remain, to this day, undiscovered and unexplored.

After his mission in Jerusalem Warren, as for Wilson, had a brilliant career and, like Wilson, he was promoted to general and knighted by Queen Victoria, and continued to maintain close links with the *Palestine Exploration Fund*.

14/ Claude Regnier Conder, who succeeded Warren for the *Palestine Ordnance Survey*, was just as talented as his predecessors for the exploration ; In addition his work consisted of a **very detailed and meticulous Collation of all the Survey Works previously carried out.**

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It appears that certain works carried out by Conder in the Haram coincided with those made by Conrad Schick, which helps to settle certain Measurement details. Nevertheless, in a general manner, and out of loyalty to his British colleagues, Conder privileged the data of Wilson and Warren, compared to that of Schick.

15/ Conrad Schick had the chance of having the last great opportunity offered to Western Archaeologists in exploring the Haram underground.

Schick was born in Germany and became architect in Jerusalem for a branch belonging to a London organization working for the conversion of Jews to Christianity.

Being extremely interested in Archaeology, Conrad Schick sent many articles to the Review of the *Palestine Exploration Fund* and the Review of the equivalent German organization, the '*Deutscher Palästina Verein*'.

In this way, Schick built a certain reputation and established a close cooperation with the two Archaeological organizations, his contribution being most appreciated because of his very meticulous work and his solid erudition.

As it happened the Ottoman Empire wished to participate in the Universal Exposition of 1873 in Vienna. The Austrian Consul in Jerusalem advised the Muslim authorities to expose a model of the Haram-ech-Cherif and recommended that the German Architect, Conrad Schick, undertake the work.

As a consequence Schick had relatively free access to the Haram and completed the model that was exposed in the Turkish pavilion at the Universal Exposition in Vienna in 1873.

In the wake of his success, Schick undertook the exploration of the Haram Underground to prepare another model.

Schick then proceeded to make new measurements of the whole Hydraulic System as opposed to those made by Warren, with the result that certain divergences appeared between the two Surveys :

In a general manner, Schick's figures seem to be more exact, but it is impossible to exclude errors he could, also, have made, or structural modifications that may have occurred between the two archaeological campaigns, for various reasons, including deliberate or involuntary actions by the Muslims.

In addition there were confusions in the methodology between the two systems of measurement established by Warren and Schick :

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Thus in order to ensure the most exact examination of the Hydraulic System, it is often necessary to use these two rivaling Systems and, in the case of divergences, to either use an average, or the figure that seems most logical in the general design of the Overall System.

But in any case the difference between the Systems of Warren and Schick are relatively minor, and do not affect the fundamental organization, logic, size or proportions of the different elements that compose the vast and ancient Hydraulic System built by the Jews upstream of the Temple, and faithfully preserved by the Muslims as a fossilized complex in the bedrock beneath the Haram, whilst the Platform that had supported the Temple, razed on the orders of Hadrian, had completely disappeared.

16/ Before examining the Underground Site of this unique Underground Hydraulic System, which has no equivalent in Antiquity Archaeology, since it had been built in compliance with the specific Prescriptions that could only be applied to the site of the Jewish Temple itself, it is interesting to try to discern the dominating Doctrine that had, consciously or unconsciously, inspired the principal schools of Archaeology in the nineteenth century, as they had had the chance to benefit from this unique occasion to explore the Haram underground and survey minutely its Hydraulic System.

Broadly, the following 19th century Archaeology schools could be distinguished :

- **A/** The Franco-Italian school represented, amongst others, by Pierotti, de Saulcy, deVogue and Vincent (the latter being a compiler)
- **B/** The Anglo-Saxon school represented, amongst others, by Robinson, Barclay, Wilson, Warren and Conder
- **C/** The German school represented, amongst others, by Schick.

- **A/** The Franco-Italian school, influenced, from the beginning, by Pierotti, had deduced from its observations the importance of a Network which would have been specifically designed to evacuate the blood and dejections of the animals sacrificed in the Temple, -even supposing immense stagnant cesspools that could alone explain certain colossal reservoirs built deep beneath the presumed site of the Temple (that is to say under the platform of the Dome of the Rock, or in its immediate surroundings)-.

Pierotti, de Saulcy and de Vogüe had not hesitated to identify this complex system as being destined exclusively for evacuation purposes, even though the only Rabbinical reference on this subject made allusion to a **simple direct broad channel** that evacuated the waste matter down to the Kedron Valley.

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- **B/** The Anglo-Saxon school did not lapse into this exaggeration, and meticulously recorded the existence of an extremely complex underground Hydraulic Network, but had not, or was not able, to raise the question as to the real Finality of such a complex Network.

In addition, like the Franco-Italian school, the Anglo-Saxon school had accepted the idea that the water necessary for Jewish Rituals was drawn from deep wells by means of winches with suitable recipients.

Warren, for example, on his drawing showing a reconstitution of the Temple, indicated the presumed site of the one single well mentioned in the *Middoth Tractate* above a Cistern situated near to the Dome of the Rock.

On the other hand Warren had ignored, forgotten, or deliberately omitted, the mikvehs of the High Priest on the upper floor of the Parvah Chamber and of the Water Gate, which were specifically mentioned in the *Middoth Tractate* and the brazen Laver for the Purifications of the Priests.

That is to say that the Franco-Italian and Anglo-Saxon Christians had not taken into account, or deliberately ignored, the imperative character of the Supreme Purification by Living Spring Waters in the Heart of the Jewish Sanctuary.

-**C/** The German school, essentially Schick, had also meticulously studied the Hydraulic Network :

The complexity of this Network and its Finality seem to have indeed greatly puzzled Schick : In fact the German, unconsciously troubled, had vainly sought, until his death, to discover up in the northern heights of Jerusalem vestiges of a Spring that could, he ardently hoped, have possibly flowed, by gravity, to the surface of the Haram and the Dome of the Rock.

But had he found such a plentiful miraculous Spring, -which had never existed on the heights surrounding Jerusalem-, Schick would have, in any case, been confronted with two major insurmountable archaeological problems :

a/ How would the waters of such a dreamed Spring have been able to overcome the profound difference of levels in the subterranean rock, situated to the north of the Dome of the Rock ?

This difference of rocky levels reveals, in fact, a deep valley which had been filled in by the Umayyads, in order to place the Dome of the Rock in the centre of the Muslim Haram, so as to rival efficiently, or supplant the Ritual around the Kaaba of Mecca.

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b/ The Etam Spring is specifically indicated in Rabbinical Writings as the Source that supplied the Purification Living Waters for the Mikvehs of the High Priest, for the Laver-Bath of the Jewish Priests, and for all the Mikvehs inside the Temple.

Now, the Etam Aqueduct carrying the Purifying Live Waters from the Etam Spring, penetrates into the underground of the Haram, on the Aqueduct of the Wilson Arch, but well below the surface level of the Dome of the Rock, and well below the surface level of the Al Aqsa Mosque, that is to say well below any point of the entire surface of the Haram.

And it is the ignorance of the Mystical Significance of the Aqueduct of Etam, as the essential and necessary driving Force of the Jewish Worship in the Temple of Jerusalem, which led, for example, all the Archaeologists of the 19th century, to an astonishing complete disinterest of the necessary exploration of the altimetry point of penetration of this Aqueduct in the underground bedrock of the Haram :

However, and fortunately, these same conscientious Archaeologists have bequeathed to us, involuntarily, sufficient Keys, allowing to determine the exact course and slope, imposed, on the Live Purifying Waters issued from the Etam Sources, by their Ultimate Religious Finality prescribed by The Eternal.