

DISCOURSE ON SYSTEM POLITICO-MATHEMATICS

A FEASIBILITY STUDY FOR LASTING PEACE REQUIREMENTS IN THE MIDDLE EAST



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1. Introduction

The Middle Eastern area as a whole, has been the scene of various civilizations since ancient times and remains a boiling zone on the world map.

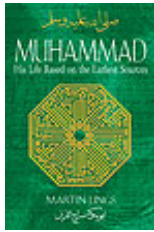
This part of the world was being narrated by old books as the Holy Bible and Qu'uran or Through the works of historians as Josephus, Philo, Al Massoudi, Al Razi or others. In what follows, I am going to discuss about the systemic approach to politics in the Middle East.

This short essay results from my personal reflections and observations of the Middle Eastern socio-political situation since the year 1967 till present.

In what follows, I am going to expose a brief review of two important doctrines that shaped the Middle Eastern scene since the end of the nineteen century and the beginning of the twentieth century which are, Arab Nationalism and Zionism.

2. Arab Nationalism

The Arab Nationalism as a movement in the Middle Eastern countries and especially the



Arabic ones represents till our days the principal motor motivating the behavior of mass populations, thinkers and politicians.

It is still the main geo political issue, especially for those countries neighboring the current state of Israel which used to be known as Palestine.

The Arab nationalism as an ideology was not born in the Middle East, but rather than in the western part of Europe, being a consequence of what was known as European nationalism in those countries as France and Germany

as was exposed in the book on *Arab Nationalism* by Bassam Tibi.

European nationalism resulted from the export from France and the propagation in Western European countries of the symbol of the French revolution of “Liberty, Equality and Fraternity” by *Napoleon Bonaparte* during his conquests to countries overlooking the Danube river such as Austria and Italy.

The Arab Nationalism appeared in the Middle East at the end of the 19th century at a time when the Ottoman Empire was struggling for survival while the Western European countries were starting to become powerful because of the industrial revolution.

Since the Ottomans where ruling the Middle East countries with a hand of iron over four centuries since the collapse of the Arabic Caliphate (from the Arabic *khilāfah*) in Baghdad, this idea of Arabic Nationalism found it's way in those countries thanks to the efforts of Arabic elites, thinkers and because of the encouragement of some Western European countries and mainly Great Britain, Germany, Italy and France.

The reason for that is, the know how in advance about the fate of the Ottoman Empire and hence the search of the possible future successor.

At the same time, the fate of the Diaspora Jews in Europe and mainly following the Dreyfus affair enhanced the thinking of reshaping of the Middle East that had been governed by the Ottomans.

Therefore, this ideology of Arab Nationalism was profitable to all parties on the political scene at that time except of course, the Turks.

Arab Nationalism didn't have a solid school of thinking to motivate its development in the Middle Eastern countries as compared to Islam Fundamentalism whose cause strives on rigorous dogmas of ancient Theologitians as *Ibn Hanbal* and his follower *Ibn Taymennah*, and Moslem Sahih Hadiths formulated by the two theologizing writers AL Bukhari and Moslem. The four Imams as *Ibn Hanbal*, *Abou Hanifah*, *Maleki* or *Shafieeh* where the founders of Sunni Sects dogmas. The Musnad Imam Ahmad Ibn Hanbal was the most rigid and the brightest of all since this Imam was strict in his Majlis, requesting people to be serious i.e. "*Al Wekar*" in Arabic. He was imprisoned for five years by the Abbasid Caliphate Al Maamoun because of a difference in thinking between the two. The Imam Ibn Hanbal was conceiving the Holy Qu'ran as being descended on to the Prophet or revealed to him whereas the Caliphate *Al Maamoun* sought the *Qu'ran* was created. The *Imam Ibn Hanbal* was refused to teach in schools or madrassah for five years then allowed latter following the death of the Caliphate Al Maamoun. Those four Imams explained the Holy Qu'uran each on his way from the most rigid Ibn Hanbal, to the less rigorous Maleki. Nevertheless, Arab nationalism has found its popularity among people masses because of the brilliant Arab heritage, thank's to the works of philosophers as *Ibn Khaldoun*, *Ibn Rushd* or medical doctors as *Ibn Sina*.

Another important attribute that favored the development of this political movement was a psychological emotional feeling commonly known and elucidated by the Syrian thinker *Sadek Jalal Al Azam* as "*Al Asabiah Al Arabia*" that tied the Arabic people from the extreme gulf region in the east, to the extreme Atlantic ocean region in the west Arab world.

This common feeling arises mostly during war time and as a consequence to the attack by a major common enemy. Examples were following the declaration of the state of Israel and the subsequent expulsion of the Palestinians, the first six days Arab Israeli war of 1967, the second Arab Israeli war of 1973, the desert storm against Iraq in 1990 and now a days the Iraqi war, Palestinian up risings and at last, the Lebanese war or Israel Hezbollah conflict.

Religion however, didn't play a fundamental role as Arabism i.e. being an Arab in those Middle Eastern countries apart from minor clashes between Christianity and Islam. Both communities contributed to the development of the Arab world and both were absorbed by the main Arab nationalistic current. Even, both furnished political Arab thinkers as *Michel Aflak* and *Sati Housari*.

As to the political leaders of the Arabic countries since World War II, and following the abolishment of some Royal Monarchies particularly in Egypt, Irak and Libya or following the independence of those countries as Syria and Algeria, then Moslem fundamentalism was not tolerated and some times oppressed using government force.

3. Zionism



Zionism as an ideology started in Switzerland as a movement created by *Theodore Herzl* at the end of the 19th century.

The first idea mentioning the need to establish an eternal state for the dispersed Jews all over the world appeared in a thin booklet entitled the *Jewish State* by Dr. Herzl.

This short manifesto was warmly acclaimed by all Jews in the Diaspora in 1898 in the city of Basel in Switzerland, but was not so much put in effect and, stayed as a document on the shelf.

It was not until the Jewish Holocaust during World War II, that the idea of founding a state for the Jews that became serious. Before that, and since the end of the 19th century till 1948, there have been some artisan methods to locate Jews in Palestine and in Most cases all ended with a disaster.

Zionism that started in Germany and was declared in Switzerland was founded irrespective of the possible localization of the Jewish State whether in Palestine or elsewhere.

In addition, as a theory it is not related by no means to Arab formalism or thinking and in particular to Arab Nationalism, nor was Zionism based on social contract philosophy of *Jean Jacques Rousseau* or other European philosophers.

The rise and propagation of both currents i.e. Arab Nationalism and Zionism in Europe and the Middle East during the same time happened by mere chance, with some blessings from European governments.

Zionism as a theory and thinking elucidated by Theodore Herzl in the short pamphlet *The Jewish State* proposes the founding of a Jewish state to rest on three poles which are *Jewish Religion*, *Jewish Culture* and *Entrepreneurship*.

Those three foundation poles enable the Jewish state to be stable and last longer than the preceding Israel state founded by *King David* based on the commandments of the *Torah* received by *Moses* more than three thousand years ago.

It is not the object of this paper to detail the Jewish history in antiquity, nor the Arabic one since the coming of the prophet Mohammad.

4. Fundamentalism

Fundamentalism appears in all three religions: *Judaism*, *Christianity* and *Islam*. In each one, he takes different form, from the ultra-orthodox and mystic Judaism to the moderate Christianity, to end with moderate Moslem Fundamentalism to extreme Moslem integrism that finishes with either exclusion from society as the case of *Takfir Wal Hijrah* in Egypt in the late seventies, or the public appearance in the form of terror wether social, psychological or physical as is the case of, *Hamas* in Gaza from the beginning nineties till now, *Taliban* in Afghanistan from end of the eighties till 2002, *Al Qaeda* in Iraq from 2003 till present.

The *Shi'ia* sect also went through fundamentalism culminating with the Iranian revolution in 1979 to establish the Islamic Republic of Iran, nourishing its partisans in Iraq as *Jaishu Al Mahdi* or in Lebanon as the *Hezbollah*.

Christian fundamentalism didn't play an extensive role in the Arab countries, aside from few clashes in Egypt and, the long and bitter civil war in Lebanon from 1975 till 1990 that ended with the *Taef agreement* in Saudi Arabia.

The Lebanese war however, doesn't represent the true clash of Moslem-Christian fundamentalism which is one of its multiple facets.

The others being Lebanon-Palestinian war, Israeli-Palestinian war and the Syrian occupation of the whole country that ended in May 2005 following the assassination of Prime Minister *Rafiq Hariri*.

5. Quantitative Analysis and Exposition of Zionism

Since the foundation of the Jewish state is on three poles, the area delineated by these three points in common Euclidian geometry is a triangle.

For the sake of simplicity, we shall assume it to be equilateral i.e. all sides equal with no distorted lengths.

If we rotate clockwise by 180 degrees around the centroid such a triangle and superpose the original triangle on the new one, we get the *Star of David* as a geometric figure.

I am sure that many people have seen this star on the Israeli flag or on Jewish armories.

Each apex shall bear one attribute i.e. either *Jewish religion* or *Jewish culture* or *Entrepreneurship* (See Fig.1).

In consequence, the weight of the Jewish state will be equally divided to 33.33% on each apex by simple static's assuming a 100% load on the centroid of the Jewish state triangle. A scheme as such, will be in equilibrium against any event that tends to flip over the state of Israel whether from inside perturbations and to a lesser extent from the outside forces. In the same manner, such a scheme can be subjected to boundary conditions as in mathematics.

For instance, the movement of the full 100% loads from the centroid towards one apex as for example entrepreneurship, results in the weakening of the two other poles or one of them such as Jewish religion resulting in a state of Israel becoming materialistic and less spiritual or religious. This brings corruption, failure of family ties, and abandon of God and hence the Torah and the appearance of the Jewish state as a common and ordinary European or American country or even any Middle Eastern one. On the long run, this may result in the collapse of the whole Jewish State.

In the same way, if the full 100% load move from the centroid and towards the Jewish religion apex, this results in the weakening of the other two or one of them such as entrepreneurship, resulting in a situation similar to the state of Israel post King David and Solomon era, i.e. two kingdoms weakening and disappearing in time, since they rest only on religion similar to a one legged chair!

At last, if the full 100% load from the centroid move towards the Jewish culture apex and away from the other two, this will result in a Jewish state which is devoted entirely to artists, painters, thinkers, philosophers, historians, politicians...

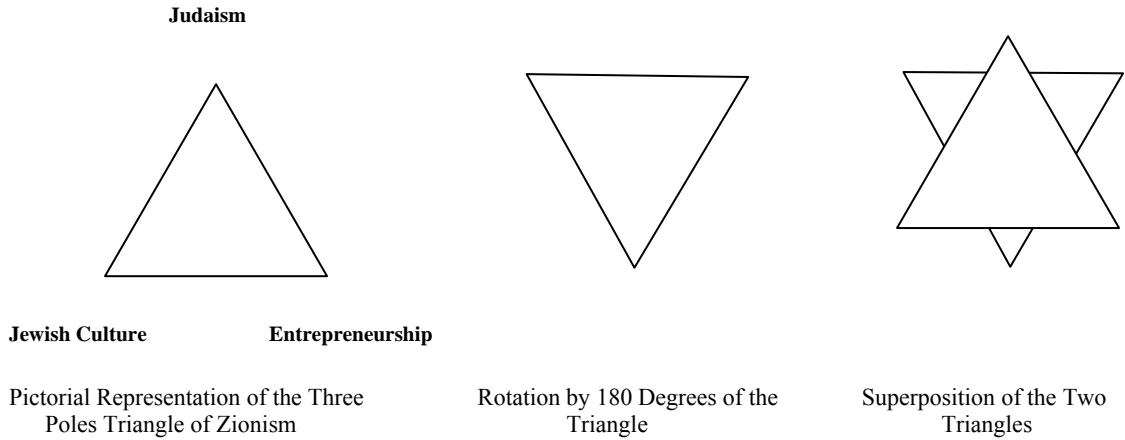


Figure1. Geometric Representation of the Zionist Mathematical Model

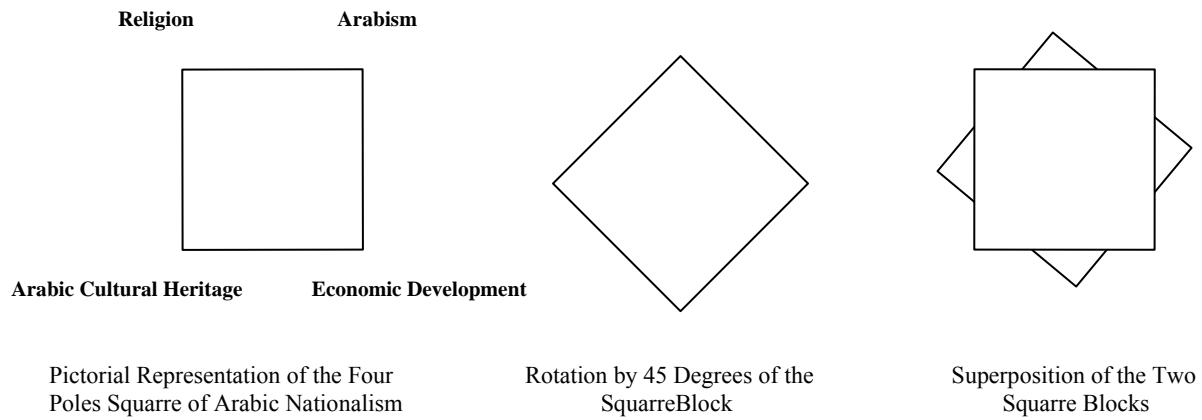


Figure2. Geometric Representation of the Arabic Nationalism Mathematical Model

Such a state would find it self with a weak infrastructure, distorted Jewish religion at the mercy of many different currents of thoughts, vulnerable to any outside attack and unstable inside.

Consequence to this systemic analysis, Zionism as proposed by *Dr. Herzl* appears to be the best solution to the Jewish State on the short and long run, inside to the state of Israel and outside to it as will be demonstrated latter when we approach systematically the Arab Nationalism movement.

6. Quantitative Analysis and Exposition of Arab Nationalism

Since Arab Nationalism doesn't rest on solid theory but more on methods of governing and hence on operations, the quantitative analysis will be deficient in some parameters due to the lack of rigidity. Nevertheless, and in the absence of a coherent theory or manifesto, I will show what would be the best model to use to describe such a system based on common factors in these Arab countries that contributed to the evolution and development of the Arab world.

Arab nationalism rose in the Middle East to its maximum strength to confront the powerful French and British imperialism in those Arabic countries post World War II. It brought about the abolishment of some royal regiments like those in Egypt, Iraq or Libya. In other cases, it shifted the republican feudal authorities as the cases of Syria, Algeria or Yemen. However, some monarchies continued to strive in the Middle East as the case of the Kingdom of Saudi Arabia, the Arab Emirates, Kingdom of Jordan and others.

In this paper, we are going to analyze mainly the situation in those countries of the near east adjacent to the occupied Palestinian territories and Israel.

Egypt is an Arab state that saw mostly the rise in power of the Nasser's movement as an Arabic Nationalism that affected its socio economic life for many years. In addition, fundamentalist organizations like *Jama'a Islamia* are strong and well organized in this country. Moslems brothers were being fought in a harsh manner by *Gamal Abdel Nasser* and his party. Many brothers were either jailed or eliminated. Hence, there was a type of war and antagonism between those two big currents: Arab nationalism and Moslem fundamentalism.

Arab nationalism in Egypt was able to unify the Christian Copts and Moslem Sunni majority by proper balance of power and distribution of wealth and authorities on all work class groups in Egypt.

Arab nationalism in Syria reached its maximal strength and stability when the Ba'ath party took the power in Syria under the late President *Hafez Assad*.

Again, this party encompassed most of the religious groups i.e. Sunni Moslems, Christians and the Moslem Alouite minority who were the ruling class of Syria for many years.

Although there has been a hard Ba'ath government oppression of Moslem brother's rebellion in the city of Hamah in the beginning of the eighties, the three main religions continued to live in peace and prosperity in that country under the Ba'ath dictatorship.

Hence, that country like Egypt has shown tension and consequently clashes between Arab nationalism and Moslem fundamentalism.

The case of Lebanon from its independence from France showed an exception among the others Arabian republics till the rise of the fifteen years long civil war.

Before the civil war, Lebanon was considered a peaceful country and among the few democracies of the Middle East.

In this country, Arab nationalism was not a strong current. Lebanon was being governed by Moslem and Christian leaders through verbal agreements and by laws.

Among these leaders, a strong progressist movement led by the late *Kamal Jumbalatt* appeared at the end of the sixties, because of anomalies in the methods of public administration, as well as intrusion of some Arab regimes and mainly Egypt of Nasser in the internal affairs of that country.

An example, the Cairo agreement in 1969 that forced the Lebanese government to authorise the Palestinian Liberation Organization or PLO to launch attacks from the South of Lebanon on the Jewish State who was in peace with Lebanon since 1948.

The expulsion of the PLO from Jordan in 1970 and the subsequent arrival of many Palestinians as refugees to that country was a main cause of friction between the PLO and the Lebanese army backed by right wing militias over the years 1974 till the expulsion of the Palestinian guerillas by Israel in 1982.

After 1982 and following the withdrawal of Israel from Lebanon, a new shia'a movement by the name of Hezbollah appeared in Lebanon and supported by Iran and latter by both Syria and Iran.

Arab nationalism through the Syrian support of the Lebanese ba'ath party and other left wing parties started to strengthen in Lebanon during the civil war and on, following the Taef agreement that ended the fifteen years war in Lebanon.

Arab nationalism in the Palestinian occupied territories as well as among Palestinian refugees in Syria, Egypt and Lebanon was mostly prevailing among the Fatah group of Yasser Arafat. Other fractions making the PLO were the democratic and popular fronts having communist tendencies.

The Hamas and Islamic Jihad fundamentalist groups appeared in the late eighties following the weakening of the Fatah group after the PLO defeat in Lebanon and the expulsion of Arafat and his guerillas to Tunisia.

As we may have seen lately in 2007 and well before that, there has been tension between the Fatah or Arab nationalists and Hamas or Moslem fundamentalists. In many cases, this resulted in clashes and blood sheds between the two.

The Kingdom of Jordan remained a stable monarchy and has lost the Palestinian West bank to Israel following the six days war of 1967. Syria lost the Golan Heights and Egypt the Sinai and Gaza.

Nevertheless, Jordan has seen some minor Arab nationalistic and Moslem fundamentalist groups ascension on power among the Jordanian population.

As was seen before, Zionism presented three foundation poles matching the apexes of an equilateral triangle.

The following question arises. Can we have a similar pattern in Arab nationalism i.e. a geometric figure with apexes as its foundations?

Well, this could be a solution, but no Arab manifesto to date has exposed that, contrary to the Zionist case.

Any attempt should be taken with precaution since as we mentioned before, the Zionist movement arose irrespective of the Arabic situation in the Middle East. Therefore, the Herzl theory cannot be applied to other than the Jewish state.

In addition, it appears non sense to apply a Jewish model or any other one to the Arabic situation in order to come up with a model since the Arabic case is different in addition to that we can be faced with critics from the Arabs. However, it is worth to try.

Let us consider Arab nationalism to have four foundations: Arabic Economic Development, Religion, Arabic Culture and Heritage, Arabism or Arabic Assabiyah i.e. feeling to be an Arab (**See Fig.2**).

Those four attributes constitute the four apexes of a square rather than a rectangle to simplify the analysis.

If we rotate clockwise such a square by 45 degrees and superpose the original square over its rotation figure, we will get an eight apex *Arabian Star* which many of us have seen as decoration on mosques or Arabian palaces walls, on Arabian artistic commodities or in literature. What a coincidence with the six *Apex Star of Zionism!*

Another question is why we chose four attributes in the Arabic model since Arabism or Assabiyah Arabic could be deleted because it appears as a redundant.

The answer comes from the Jewish model since the third attribute of Jewish culture invented by Herzl was to him a non necessary surplus in which he selected a bad choice not quite necessary compared to Entrepreneurship and Judaism, as was exposed in the book on the Jewish State by Yoram Hazony.

In consequence, the omitting of Jewish Culture from the Zionist model leaves us with a figure with no geometry i.e. a line segment between Judaism and Entrepreneurship compared to the triangle of Judaism, Entrepreneurship and Jewish Culture.

Consequently, the redundant attribute of Assabiya Arabia or Arabism finds it's legitimacy in the Arab nationalism model.

The same analysis on the stability of the Arabian square can be deduced from the one formerly exposed on the stability of the Zionist triangle but with some modifications.

If the 100% load is applied on the centroid of the square, then each apex receives a mass of 25%.

In the case of a distortion as for the full load moving towards the Arabic economic development and far from the others, then an Arabic country finds it's self a material like society resulting in corruption, unbalanced distribution of wealth that results in social uprising as is the case in Syria, occupied Palestinian territories, Egypt, Lebanon, etc... All of them are facing the up rising of Moslem Fundamentalism in addition to other fractions of the society.

If the centroid is shifted towards the Religion apex (Islam, Christianity) then we reach a situation whereby such a country is concentrating it's wealth on religious matters and is expected to fall in underdevelopment as was the case of the Arabic countries before their Golden ages under the Abbasid ruling i.e. during the Umayyad Caliphate ruling or

afterward under Ottoman domination. I will leave to the reader to think and deduce the consequences of having the centroid moves towards the Arabism or Arabic culture apex. At last, those two geometric models become more realistic when we find a third case model as for instance, a pentagon or hexagon which when rotated, will generate a ten apex or twelve apexes star that characterizes some civilizations or societies in the world. A viable but incomplete model is the French hexagon that symbolizes the *Gaulien* and *Latin Kingdom* of France. Till now, I have not seen any twelve apex star to characterize French culture in historical books, sculptures or museums!

If any reader has come on such twelve apex star in the “*Armories of France*”, please be kind to contact me since this is the answer to the viability of the Zionist and Arabic Nationalism Relic.

Such a third model if it exists, will serve as a proof and blank test that the equilateral triangle and the square are true representations of Zionism and Arabic Nationalism.

In the above paragraph of this paper I asked my readers whether they encountered in France or over its Armories a Twelve sided Polygon to be the result of a rotation of the Gaulian Hexagon around its center, in order to prove the validity of the Zionist Triangle and the Arabian Nationalist Square and hence, the Zionist Star of David and the Arabian Star.

Well, I found myself the answer! If you contemplate the sanctuary where *Napoleon Bonaparte* is buried, then you will see that the *Twelve Muses* surrounding his Bordeaux Color Tomb are tied by twelve beams that support the ceiling! I should remind my readers that Napoleon was the Military General that circulated the symbol of the French Republic i.e. *Liberty, Equality, Fraternity* through out Europe and also is considered as the precursor to European Nationalism. Therefore, my mathematical and geometrical model of Arab Nationalism versus Zionism appears true since it is valid also for a third case which is, France in particular and Europe in general.

Therefore, European Nationalism can only have six foundations not less since, three are for Zionism i.e. Jewish Nationalism where as four are for Arab Nationalism. Then, what are those six poles or foundations of European Nationalism?

In what follows, is my suggestion which is optional? Since the basis of European Nationalism started with Liberty, Equality and Fraternity, then these are three of the six poles. Liberty is synonymous to Freedom hence Democracy, since it is the freedom of speech and political practices. Equality is synonymous to Socialism which is the main Economic System in both West and East Europe and last, Fraternity is synonymous to European Unity i.e. European Union having its member's brother and sister countries alike. The other three poles can be *Technology, Religion* and last, *European Cultural Heritage*.

7. Quantitative Analysis and Exposition of Moslem Fundamentalism

As we explained earlier, Arab nationalism and Moslem fundamentalism showed tension between them that exploded into clashes and blood shed in many cases.

Those two entities follow therefore an inverse relationship of the form: $Y=1/X$ to simplify the picture.

X is considered the strength of Moslem fundamentalism, whereby Y is the strength of Arab nationalism.

Hence, if Moslem fundamentalism is weak, Arab nationalism is strong in a given country and vice versa.

An example to that is the case of Arab nationalism in Syria. Moslem fundamentalism or X is weakened by Arab nationalism or Y under *President Assad* ruling mainly during the 1982 Hama Moslem brothers rising. Such an oppression was however brutal. Another example, is the Hamas fundamentalism rising in the Palestinian west bank against the weakened by corruption the Arab nationalistic Fatah movement of the late President Arafat.

In Egypt, at the time of *President Nasser* and till now, the Arab nationalist Nasser movement is antagonist to the Moslem fundamentalist jamaa islamia. Most of them were either jailed or eliminated.

The peak of that theory was the interference of the U.S.A with Iraq internal affairs by striking harshly the *Saddam Hussein* Ba'ath party and weakening it to explode the Moslem fundamentalist movements both Sunni and shi'aa.

The above picture becomes different when we consider the situation of Moslem fundamentalism versus Christian or Jewish fundamentalism.

All three follow a linear relationship of the type $Y=Z=X$. If the strength of Moslem fundamentalism as Y increases, the same will be with the other two: Z for the Christian one and X for the Jewish.

Such a situation is clear in Lebanon, Iraq or in the occupied Palestinian territories and Israel.

8. Interaction of Arabic Nationalism with Zionism

In this paragraph, I will comment on the balancing situation that must prevail between Arabic nationalism and Zionism to reach a stable Middle East.

I will resort to the two geometric models of the square and triangle that I have previously exposed.

In the case whereby some Arabic countries reached the situation of distorted Arabic nationalism square with religious fundamentalism resulting, then the equation $X=Y=Z$ would dominate on $Y=1/X$, giving rise to enhanced Moslem, Christian and Jewish fundamentalism that will shift the centroid of the Zionist triangle towards the Jewish apex, resulting in the destabilization of the Zionist state and as we exposed before, would turn it down as it happened post King David and Salomon era.

In consequence, any foreign power that unconsciously strikes the Arab nationalist system, will on the long run contribute to the disappearance of the state of Israel.

9. Further Research and Development in System Politico-Mathematics and Expected Future Horizons.

The above feasibility study of possible long lasting peace between the ideologies of *Zionism* and *Arab Nationalism* was presented as a rough sketch that needs future research work in different disciplines of *Mathematics*, *Physics* and *Political Sciences*.

In my analysis, a number of assumptions have been made with no scientific proof or rigid grounds which are:

9.1. The rotation of the Zionist triangle and of the Arab Nationalism square

The assertion that the rotations of geometric figures to produce the geometry of specific stars that each characterizes a certain civilization needs to be enhanced by the elaboration of mathematical models thriving from affine geometry, representation theory and graph theory in mathematics. Nevertheless, this theory is still hazy since the Zionist star or the Arabian one are mere decorating symbols such as calligraphy or painting with no scientific background. An example to that is The Leningrad Codex or *Codex Leningradensis* is one of the oldest manuscripts of the complete Hebrew Bible produced according to the Tiberian mesorah; it is dated 1008 according to its colophon. This picture is reprinted in the upper left corner and on this paper cover.



9.2. Topological 3 Dimensional Space Representation of the Two Models.

The previously mentioned value of the strength of religion fundamentalist i.e. X can be scaled on an axis pointing downward and passing through the religion pole of the square of the Arab Nationalism geometry on figure 2 of page 5 of this essay. The value of X increases as we slide downward on this axis. The value of the strength of Arab Nationalism depicted as Y and measured by the area of that square is shown to decrease in value or shrink whenever X increases as depicted by the rule $Y=1/X$.

The hyperbolic relation results in a dynamic picture of Arab Nationalism versus Religion Fundamentalism which can be elaborated accurately through the theory of topology in mathematics. The three dimensional Arab Nationalism appears initially to be a cube (suppose it a cube like plastic vessel containing a gel like fluid) with the same height at each of the four poles of the model. Now, when there is a distortion in the situation i.e. a perturbation that results in the topological space deformation of that cube, the geometry of the cube shifts to a pyramid whose height is the value of the strength of Moslem Fundamentalism scaled by the axis through the Religion pole pointing in the downward direction designed as the positive (+) direction.

This deformation will shrink the square from its original state and stretch it downward to transform the cube into a pyramid. The more that religion fundamentalism increases, the more is the downward stretching in the pyramid with the constant maintaining of the original cubic volume together with a decrease in the base area of the pyramid that originally was a cube. Such a dynamic image clearly describes the topological space deformation of the Arab Nationalism model. I have to add that the cube and sphere are

topological similar subspaces with one deforming into the other. The same with the square and triangle that are topologically equivalent since the squeezing of the square on to opposite sides will result in two equilateral triangles that we can fold and superpose on each other without cutting or gluing the original square or cube space geometry. The squeezing of the cube on three opposite sides result in two identical pyramids that can be folded on each other to have just one at the end . Therefore, the square and triangle are similar in two dimensions space as well as the cube and pyramid in three dimensions one.

I have to add that much of topology theory was elaborated by the great German Mathematician *Bernhard Riemann* that us as engineers and scientists, have a lot of time encountered his name in many theorems, axioms and fundamental equations in mathematics and physics.

Another prominent mathematician that first studied such a topologic theory is the Swiss mathematician *Leonard Euler* who studied the seven bridge paradox in a village of Germany or Switzerland many years ago.

The above analysis can be extended to the Zionist triangle model on figure 1 that can be studied using the rules of topology to relate Judaism and Secularism represented by Entrepreneurship in the Herzl model. The relation that I expect is also of a hyperbolic nature resulting in a tetrahedron upon passing an axis through the pole of Judaism and perpendicular to the equilateral base triangle.

9.3. The Mapping of abstract terms as Religion, Entrepreneurship or Economic Development onto the 3 Dimensional Euclidian Space.

The assertion that the associations of abstract entities like Religion i.e. Christianity, Islam or Judaism, Entrepreneurship or Economic Development, Arabic Cultural Heritage or Jewish Culture to each pole of the triangle or square figure in the Euclidian vector space needs the formulation of a special case of Graph Theory applicable to this study. In most mathematics and physics theories the space points represent objects with a measurable value like weight, volume, pressure, force, velocity or acceleration and trajectory. In this present study, it is Religion, Culture, and Arabism that has no material value to be affected each through a linear mapping to a specific point in Cartesian space. The only exception to this is Economic Development or Entrepreneurship that presents some material dollar value that can be mapped easily by tradition onto a graph or map.

The mapping of the four poles of Arab Nationalism onto a three dimensional Euclidian space is equivalent to the mapping from the language set of nouns or verbs onto the set of Euclidian vector space.

It can be represented by the relation $f: \mathbf{A} \text{ (Language)} \rightarrow \mathbf{B} \text{ (Euclidian Space } R^3)$

The four poles in space constitute a set of 4 vectors arising from a common origin \mathbf{O} which is the intersection of the three reference axis perpendicular to each other.

These four vectors $\rightarrow \mathbf{OA}$, $\rightarrow \mathbf{OB}$, $\rightarrow \mathbf{OC}$, $\rightarrow \mathbf{OD}$ determine the location of the four poles of Arab Nationalism in space.

The four foundations that I have selected are independent of each other with only the Economic Development pole having a material dollar value, hence enabling Arabism to bear only Arabic characteristics like Arab Sociology, Psychology, Anthropology and especially Arab language. Religion and Culture Heritage are also independent of the rest.

Then we ask the question: what mathematical formalism enables us to assign abstract i.e. non material entities as Religion, Arabism, Cultural Heritage, and Economic Development onto a real vector space?

In addition, are we allowed to proceed as we did or otherwise try and find the adequate theory that permits us to evolve further?

At last, we need to develop a certain mathematical formalism and axioms in order to proof the validity of our theory otherwise it will be questionable by other theoreticians. Information Theory and Communication Sciences and Engineering may carry part of the answer; however, the main science behind this Mapping assumption probably lies in the Deformation Theory of Topological Spaces.

Another possibility is to inspect the domain of atomic and elementary particle physics and its quantum mechanics apparatus that carry a complicated formalism of operators such as creation and annihilation operators that if applied to the vacuum space create elementary matter!

The assignments of the four pole arguments of Arab Nationalism onto four positions in space cannot find its logic place in mathematics unless coupled with a rigorous mathematics apparatus like that of Euclidian or Affine geometry as proposed by the 19th century mathematician *Felix Klein* in addition to that of non Euclidian geometry mainly of *Bernhard Riemann*.

In addition, the elastic theory of the expansion of the universe using the mathematics of *Minkowski* and the physics of *Lorenz* and *Einstein* may be applied to a certain spaces to find its explanation

The statement that let us assign four nouns as Religion, Cultural Heritage, Arabism, Economic Development to four distinct points in space can be used by any association, agency or company in the following manner when stating the main principles of its corporation. As an example is someone planning to establish a social club in America with these four principles:

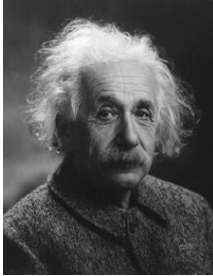
- Freedom of his members
- Equality among his members
- Loyalty of his members to the club
- Charity works of his members

Then these four points result in a square that after a rotation of 45 degrees yield an eight apex star that previously we said it symbolizes an Arabic style of art. Does this mean that this club is of Moslem or Arabic nature? Not at all!

The same with a social club with three principles: Freedom, Equality, Loyalty which by rotation results in a six apex star. Is that to mean that this club is of Jewish or Zionist nature?

I don't think so; hence my statement about representing Arab Nationalism by four poles geometry of square and that of Zionism by three poles geometry is fragile and not unique unless supported with a valid theory that should thrive from mathematics and physics as pure sciences.

The answer was given previously when discussing Felix Klein works in addition to those of Bernhard Riemann and Albert Einstein.



The whole reasoning should be remolded to become as follows.

Let us assume that the space of concern is a topological Riemann space obeying *Albert Einstein* general relativity theory. A sub space of the universe is selected. This subspace of spherical or ellipsoid form is being acted upon by four deformation forces to result in four local elastic depressions termed the four poles of Arab Nationalism that we know. These four poles determine a square that transforms to a cube which is demonstrated to be topologically equivalent to a sphere.

Then by continuing my previous logical reasoning, my theory or geometrical similarity of representation becomes adequate. In this way, we can start formulating a set of mathematical axioms and theorems to develop the scientific model of Arab Nationalism that results in mathematical equations and graphs.

This same logic can also be applied to another spherical or ellipsoid subspace of the same universe which is being acted upon by three elastic depressions termed the three poles of Zionism that we have studied before. By following the deformations shown on **figure 3**, we reach the square of Arab Nationalism. The axis of Religion which is Judaism in this case results in a tetrahedron that can transform easily into a cube in three dimensional space.

In consequence, the square versus triangle and cube versus pyramid or tetrahedron are all equivalent and mutually resulting from each other.

The least action principle in variational calculus based on *LaGrange* mathematics can be used with the assumption that the provocative momentum to this chain reaction originates from “**GOD**” who starts to vibrate the universe and hence deform it through the verb: *Be and it was* as mentioned in the first book of Torah: “**Genesis**”.

As an example, the Noble Laureate of Physics in 1962 *Lev, D. Landau* (1908-1968) of the



Ex-Soviet Union, had elaborated an outstanding rigid and transparent physics and Mathematics formalism using *LaGrange* mathematics and mechanics to arrive at the *Einstein* famous equation of equivalence of mass and energy in special relativity

Which is: $E = (MC)^2$.

In this respect, he starts with the classical mechanics of a point particle which thrive on *LaGrange*, *Hamilton* and *Newton* theories and then transit to high speed *relativistic mechanics*. Afterwards, he starts with the least action principle of the calculus of variation that I extract a part of it with the permission of the online encyclopedia *Wikipedia*.

The action in physics was defined by *Hamilton* to be the time integral of the

Lagrangian L , which is defined as a difference of energies $L = T - U$ where "T" is the kinetic energy of a mechanical system and "U" is the potential energy. Hamilton's principle i.e. *least action principle* states that the motion of a mechanical system is such that the action

$$L[C] = \int_{t=t_0}^{t=t_1} L(X, dX/dt)dt$$

Is stationary with respect to variations in the path " $X(t)$ ".

This beginning equation with the difference energy quantity L , as the starting energy, is behind the target result of $E=MC^2$ as the equivalence of mass and energy. Of course, there is a sequence of logical equations based on the theories of proper velocity and time appearing in the Lorenz transformations of space and time and observed in the *Michelson–Morley* experiments. The end to this sequence of equations is a formula for the variation of mass and momentum of a point particle with time and then to $E=MC^2$

The only way to approve and hence accept this rigid formalism is by accepting the quantity L whose source is unknown and mentioned to be a definition in a mathematical sense! The most logical one is that the lagrangian L is a predetermined and existing entity emanating from the creator of the Universe: **GOD**.

I have to remind my readers that the *Albert Einstein* methods of derivation of this law of special relativity which is the original and initial one is different than that of *Lev Landau* in his book on theoretical physics. I have found the approach of Einstein less transparent and much less rigorous and interesting!

This same author *Lev Davidovich Landau* has written about ten books on theoretical physics translated from Russian and all published by the *Pergamon Press*. They treat the subject of Physics from classical mechanics to quantum mechanics, elasticity, thermodynamics, fluid mechanics then electricity and electrodynamics to end with relativistic quantum mechanics which is the ultimate of sciences in terms of difficulties in its mathematical apparatus.

To return to my previous analysis on the origin of the material universe as depicted in the book of genesis, the verb whispered by God is materialized to an accomplished work. Consequently, my assignment of a verb or argument as I called it to a point of the concrete space is only possible through a huge momentum (the Energy L) emanating from God as the starting entity in the whole mechanism of creation. However, given that the action verb "*be and it was*" originated in the Jewish *Torah*, the Zionist triangle model becomes the origin in my systemic politico-mathematical modeling of Zionism and Arab Nationalism.

Hence, my model interpretation of Arab nationalism as four poles square must descend from the Zionist one as a three poles triangle. This is synonymous to saying that the Zionist model must rule over the Arab Nationalist one.

This is logical because Israel is more developed than the rest of the Arab countries in the Middle East, in addition to enjoying a more democratic system compared to them, although Israel is still harsh towards the Palestinians in addition to continue to ignore their civil and human rights and not to respect the decisions of the international community.



The German mathematician *Bernhard Riemann* (1826-1866) whose father was a poor Lutheran pastor was interested in Bible studies during his youth. In high school, Riemann studied the Bible intensively, but his mind often drifted back to mathematics. He even tried to prove mathematically the correctness of the Book of Genesis.

To continue with my analysis concerning the transcendence of a triangle in space to a square figure without cutting or gluing, I am attaching a draft picture of this on figure 3.

9.4. The Invariance of Space and Time in both Models.

The assertion concerning the invariance of time and space applied to the Arab Nationalism and Zionism becomes more applicable to both of them when we study the topological space connection between those two topological subspaces which are the triangle and the square. Is the connection through Entrepreneurship and Economic Development poles more feasible than through Religion and Judaism poles of both geometry?

Entrepreneurship versus Economic Development is more likely a better connection link between the two models than Religion versus Judaism. The reason is that Moslem, Christian or Jewish Fundamentalism in this paper follows a proportional linear relationship of the form $X=Y=Z$ as exposed before, the strength of each increasing linearly with the strength of the other. This linear relationship will cause a kind of repulsion between the Religions pole i.e. (Islam, Christianity) in the Arab Nationalism model versus Judaism in the Zionist one and therefore, a difficulty in connection since in topological thinking, we can neither cut nor glue a topological sub space but just wrap it on itself.

Therefore, the two poles Entrepreneurship versus Economic Development are more likely to connect with each other naturally as a result of space agitation or folding.



It is unlikely that Jewish culture in the Zionist model is capable of connecting with the Arabic cultural heritage of the Arab Nationalism model, since each culture is different from the other although they have in common some bright Philosophers as *Moses Maimonides* and *Ibn Rushd* (also known in European literature as *Averroes*).

Averroes who is the most important Arab Philosopher, lived in *Andalusia* which is now a days Spain, where as *Moses Maimonides* i.e. *Abu Imran Mussa bin Maimun* who latter was inspired by him, existed at the time of *Sultan Saladin* in Egypt and was his adviser and Medical Doctor.

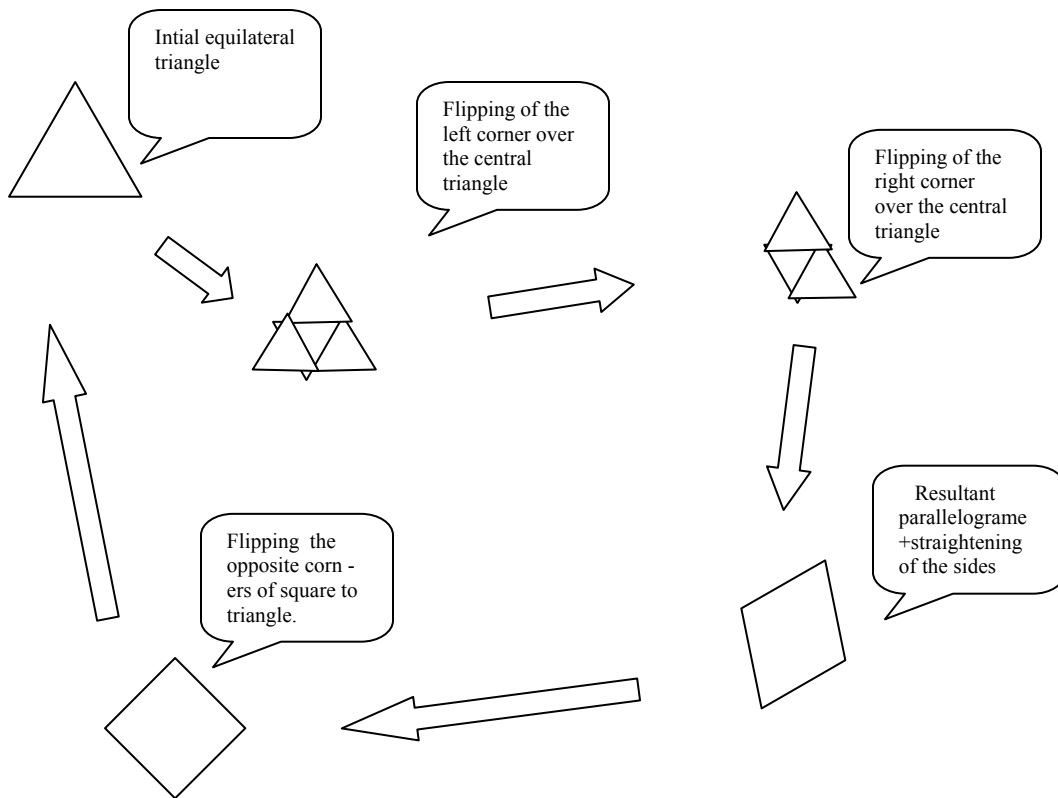


Figure 3. The cycle of topological in plane deformations and transitions from an equilateral triangle into a right angle square i.e. from the Zionism triangle to the Arab nationalism square and then to the initial Zionism departure triangle.

Then we ask the question: What are the benefits of Space and Time Invariance in our two models theory?

The answer is that when the two geometric models become connected, then the strong space invariance of Arab Nationalism will strengthen the deficient one of Zionism whereas the strong time invariance of Zionism will in its turn strengthen the deficient one in Arab Nationalism.

To comment on Space Invariance, we know that Arab Nationalism appeared in many countries of the Middle East as Egypt, Libya, Algeria, Syria, Iraq, Jordan, Saudi Arabia and Yemen.

In addition, those countries except the Arabic Monarchies are still following its main path with some variations because of the evolution of Middle Eastern politics as a response to changes in world politics. Therefore, the theory of Arab Nationalism is true and Space Invariant because of its application in different geographies of the Arab world. If we arrive to an algebraic relation between the four poles of the Arab Nationalism square,

then we can prove further the invariance properties by modifying the Cartesian coordinates in the model then verifying if the equation still holds. The starting equation dwells from affine geometry, and I have in mind the linear form of *Grassmann* that others call the *Leibniz function* concerning the determination of the coordinates of the center of gravity of a certain geometric figure. Once we derive the linear form with weight coefficients affected to each pole, then equating this point function to zero has to yield the coordinates of the center of gravity. The difficulty is to accept the assignment of quantified constant values to abstract volatile nouns as Religion, Culture, Arabism, Economic Development, Entrepreneurship, Etc...

This will be studied in the future and tried since it is a complicated matter.

The Zionist model is weaker in space invariance since it is applicable only to the State of Israel in the Middle East although in ancient Jewish history, Israel's frontiers reached their maximum during the David and Solomon Kingdoms covering the land of Canaan that extends from the *Red sea* south to the northern frontiers with the land of the *Hittites* (nowadays Turkey) and westward from the *Mediterranean sea* till the *Euphrates* river eastward. However, such a Kingdom then split into two monarchies, that of the North with ten tribes and that of the South with two tribes having their capital Jerusalem. The Kingdom of the North later disappeared under the Assyrians whereas that of the South disappeared under the Babylonians with the ending of the ruling of the Judean kingdom on the hands of *Nabuccodonosor*.

Anyhow, the resurrection of the Jewish State in 1948 thanks to Zionism, confined Israel to only one country in the Middle East which is restricted in geography although, it was able to settle two peace agreements one with Egypt and another one with Jordan with plans to establish peace mainly with the Palestinians and thereafter with the Syrians. It is the establishment of a Palestinian State that is the key issue to the whole Middle East conflict together with favorable arrangements for the Palestinian refugees of 1948 and those of 1967.

As to Time Invariance, it is prominent in the case of the Zionism model and much weaker in the case of Arab Nationalism. The reason is that Zionism and Judaism are almost the same entity compared to Arab Nationalism and Islam that are much too different. Since Israel and the Jewish people are the oldest in time dating more than 5000 years ago, then Zionism appears strongly Time Invariant compared to Arab Nationalism that just appeared at the beginning of the last century although Islam exists since about 1500 years compared to Christianity that is older by 500 years.

Another influence of time on the Zionist and Arab Nationalist model comes from the fact that the lapse of time of nearly 500 years between Islam and Christianity results in a divergence of thinking and misunderstanding between Christians and Moslems especially among the least tolerant people in the Middle East and world wide who find it difficult to accept each other on this planet with respect to religious matters. The presence of Israel and mainly the Zionist current alleviates a lot this situation by removing the time barriers between the two models of Zionism and Arab Nationalism. In this context, Israel being the most ancient in time among religions, will act to bridge the time gap of 500 years between Christians and Moslems in order to bring them toward the same time datum

level, in order to be able to converse and negotiate, especially at this time period whereby the relations between Christianity and Islam were at their lowest levels and perturbed as a consequence to the terrorist attack of Al Qaeda on the United States of America on September 11 of 2001. Hence, the linking bridge between Arab Nationalism and Zionism together with the presence of Israel in this context will enable the Moslem and Arab countries to travel backward in time towards Christianity in order to settle their differences. Such a situation would have been impossible without the presence of Israel and Zionism on this planet. Few days ago, I was consulting the online Al Riyadh Newspaper of Saudi Arabia concerning a project that his Majesty King Abdullah will set to initiate discussions with Christians concerning religion differences. The publisher asked for readers comments and has set a winning price for the the luckiest responder. Among the answers, some people praised the King for this initiative while others pretended that there is nothing to discuss since Islam is the latest religion and the most correct one and consequently, both Christianity and Judaism are superseded by it. The answers were nearly 50% to 50% in favor and not in favor of the King's project. Consequently, it is the presence of Zionism that will narrow the gap between Islam and Christianity since the traditional and conservative Moslems live at the year 1429 Hijra, while the conservative Christians live at the year 2008 Ad, which is when Jesus Christ came to the world and therefore the birth of Christianity.

9.5. Topological three Dimensional Space Representation of the Two Models.

The above value of the strength of religion fundamentalist i.e. X can be scaled on an axis pointing downward and passing through the religion pole of the square of the Arab Nationalism geometry on figure 2 of page 5 of this essay. The value of X increases as we slide downward on this axis. The value of the strength of Arab Nationalism depicted as Y And measured by the area of that square is shown to decrease in value or shrink whenever X increases as depicted by the rule **$Y=1/X$** .

The hyperbolic relation results in a dynamic picture of Arab Nationalism versus Religion Fundamentalism which can be elaborated accurately through the theory of topology in mathematics. The 3 dimensional Arab Nationalism appears as initially to be a cube with the same height at each of the four poles of the model. Now, when there is a distortion in the situation i.e. a perturbation that results in the topological space deformation of that cube, the geometry of the cube shifts to a pyramid whose height is the value of the strength of Moslem Fundamentalism scaled by the axis through the Religion pole pointing in the downward direction designed as the positive (+) direction.

This deformation will shrink the square from its original state and stretch it downward to transform the cube into a pyramid. The more that religion fundamentalism increases, the more is the downward stretching in the pyramid with the constant maintaining of the original cubic volume together with a decrease in the base area of the pyramid that originally was a cube. Such a dynamic image clearly describes the topological space deformation of the Arab Nationalism model. I have to add that the cube and sphere are topological similar subspaces with one deforming into the other. The same with the square and triangle that are topologically equivalent since the squeezing of the square on

to opposite sides will result in two equilateral triangles that we can fold and superpose on each other without cutting or gluing the original square or cube space geometry.

The squeezing of the cube on three opposite sides result in two identical pyramids that can be folded on each other to have just one at the end . Therefore, the square and triangle are similar in two dimensions space as well as the cube and pyramid are in three dimensions one.

I have to add that much of differential geometry a precursor to topology was elaborated by the great German Mathematician *Bernhard Riemann* whose photograph appears on paragraph 9.3. We as engineers and scientists have a lot of time encountered this name in many theorems, axioms and fundamental equations of mathematics.

Another prominent mathematician that first studied such a topologic theory is the *Swiss* mathematician *Leonhard Paul Euler* (1707-1783). The branch of mathematics now called topology began with the investigation of certain questions in geometry. Leonard Euler's 1736 paper on *Seven Bridges of Koningsberg* is regarded as one of the first topological results.

The above analysis can be extended to the Zionist triangle model on figure 1 that can be studied using the rules of topology to relate Judaism and Secularism represented by Entrepreneurship in the Herzal model. The relation that I expect is also of a hyperbolic nature resulting in a tetrahedron upon passing an axis through the pole of Judaism and perpendicular to the equilateral base triangle.

In a previous research paper on the "Quantification of the Arab Philosophic Mind" published on the "Morepist Press" at the website <http://announcexpress.com/mp/>, I have discussed the results of my study and came to the following important results concerning the stability of the Middle East and it's adjacent region which is the European continent. I have raised the hypothesis that the Arab countries by being the doors to Europe, must act as a filtration barrier to extremist currents originating from Asia and Africa if they want to be of some use on this planet.

Since the Arab countries are much different from the Islamic countries in their history, Arabic language and culture although part of the Congress of Islamic countries, they have the task of alleviating the strength of Fundamentalist currents originating from parts of Asia and Africa as well as from some of them if they want to be of some use on this planet especially in the combat of terrorism post 11 September 2001.

In order to alleviate the strength of fundamentalist streams originating from Asia and Africa, they should provide an adequate information and intellectual capacity of population reservoir receiving these streams. Therefore, the determination of the reservoir capacity can be calculated from an Eulerian style continuity equation involving inflow, outflow and accumulation similar to those of transport phenomena around momentum, heat and mass transfer in continuous media.

In this context, I have to return to tensor like algebra to develop such mathematic model, the same as with the equations revolving around affine and differential geometry concerning Zionism and Arab Nationalism models stated before.

Last, it has been observed that the intellectual capacity of population reservoirs decreases with the religion strength of its population in other words, the more fundamentalist and the less intellect is its population.

No wonder why the Western countries by adopting secular regimes evolved faster than at middle ages as was mentioned in the book on History of Western Philosophy by *Bertrand Russell*.

9.6. Distortion in the actual Arab Nationalism and Zionism models.

At last, perturbation theory and variation calculus in mathematics permit us to study the impacts of small distortions on both geometries to determine the maximum permissible upper level and lower level of distortion. This is better achieved once we have elaborated certain mathematical equations to describe the performance of both models. As I explained in the preceding paragraph on Time and Space Invariance, this will be done further in another study.

9.7. Available Data Extracted from Middle Eastern Political Case Theories.

To end this essay, I must mention that the above proposed research studies should be made realistic from case studies in Middle Eastern Politics and History as well as from completed projects on the analysis of the situation of the Middle Eastern scene by various professional and authorities in these fields. The respect of political theory and philosophy is key to the success of these research projects. An example to that is the comment by the publisher of the book on *Arab Nationalism* by *Professor Bassam Tibi*, that there has been always tension between Arab Nationalism and Moslem Fundamentalism in many Arab countries of the Middle East. This information presents enough data to curve fit such a statement into the hyperbolic relation of $Y=1/X$ between the strength of Arab Nationalism and Moslem Fundamentalism.

9.8. Conclusion

From the above analysis, we deduce that to maintain a stable Middle East, we should strengthen the Arab Nationalist regimes and at the same time prevent their destabilization by maintaining a state of equilibrium among their four poles of power.

The same is true with Zionism that should be enhanced by maintaining equilibrium among its three poles of power.

This task should be carried by the political regimes of those countries and controlled also by wise foreign powerful countries and the United Nations.

All the Israeli political attitudes to that date have permitted us to deduce that the Jewish State is more prone to survive with adjacent Arab Nationalistic countries rather than Moslem fundamentalist ones.

Israel concluded a successful peace process with Egypt which is an Arabic nationalist country, with Jordan a Monarchy, and is capable to deal better with the Fatah rather than Hamas.

In addition, the Syrian-Israeli front is quite since 1973 and, some form of peace discussions that may lead to an agreement are on the horizon.

Following what is occurring in this multi-ethnic Iraq country with diversity in religion fractions and sects, we can interpret this geometric model of Zionist triangle versus the Arab nationalist square as the secret of the Iraq Pandora!

I am afraid of the repetition of this sad Iraqi experience onto the Lebanese and Syrian scenes, and more and more onto the Israeli-Palestinian one.

My mathematical modeling approach to political science and mainly to that of the Middle East appears as a pioneering project.

I invite the readers of this article to go to a nearby bookstore to check books about the Middle East on the shelves or to open some books from their home library and to glance on their content and methods of analysis and approach then on the content and method of analysis of mine. I am sure that you will conclude that the Middle Eastern deserts whether that of Negev in Israel or the other deserts in the eastern or western parts of the Arabic continent is flourishing in my paper.

In addition, I invite all scientific professionals from areas as mathematics, statistics, physics or engineering to follow my way in putting all their technical and scientific skills in the analysis of social or political problems. In this manner, we can quantify the political situation with numbers and weight values and judge better our solution to problems present on the political scene. We can then say we are sure by such and such percentage that our political decision to invade a country, or promote its development, or amend its regime will bring us to such and such percentage of success or failure.

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