From a Point to a Line to a Superfices to a Solid

In the beginning was the word . . .

One could not begin to count the manuscripts, book, papers and the like that have been written on the subject under consideration here. There are very interesting works on polyhedra, sacred geometry, and the attendant subjects related to this. Why the Craft has been left with geometry as its basis is anyone’s guess, but it is plainly stated that it is. One could easily go the next step to this and ask, “What is the basis of geometry,” which would be a very relevant question to ask.

Nearly all works on polyhedra and sacred geometry [any many other works] begin with material that is somewhere in the middle of the story, but not “In the beginning . . .” Many will introduce the reader to the five ‘Platonic Solids’ but will not discuss from where these solids came. Even Plato, as interesting as his discussion is, began with the ‘triangle whose hypotenuse is twice its shortest side.’

A very popular book on Sacred Geometry begins with its ‘Workbook 1: The square cut by its diagonal; square root of 2.’ I have attempted to communicate with some of these authors, but the they quickly break off communications when I seek to discuss the primal origins and other potentials of this subject.

Philosophers, theologians & geometers are not the only ones pondering this subject; physicists have devoted enormous research into our primal beginnings. On the internet one needs only to type in the keywords: “Big Bang first second” to view many pages of information about what happened before the first millionth of a second of Creation, such as:

- http://www.umich.edu/~gs265/bigg.htm

This image shows two gold beams colliding at near the speed of light. The collision took place at the Relativistic Heavy Ion Collider run by Brookhaven National Laboratory in New York.

The present discussion will not presume to ‘set the record straight’ or to solve the mystery of Creation, but will make some attempt to present some material for consideration on this most interesting subject. Physics and metaphysics are often strange bedfellows to academia, but both will be discussed in the present work.

As previously stated, Freemasonry records:
“A point is that which has position, but not magnitude, and is the beginning of all geometrical matter.”

One of the first rules for consideration would seem to be: “Don’t accept everything you read literally.” Take what you think, hear, see or read inside of you and contemplate it. What YOU think may actually be what someone else may have led you to believe, but it does not mean that there could not be another version of it.

In the First Degree of Masonry the EA is asked a very special question after taking the obligation and is then assisted regarding his answer to this question. What actually happens at this ‘point,’ however is a mite premature to what appears in Genesis Chapter 1:

1. In the beginning G*d created the heaven and the earth
2. And the earth was without form, and void:
   and darkness was upon the face of the deep.
   And the Spirit of God moved upon the face of the waters.
3. And G*d said, Let there be light: and there was light.
4. And G*d saw the light, that it was good:
   and G*d divided the light from the darkness.

In the beginning science tends to accept the cosmos was a large void before the ‘big bang.’ Perhaps there was a large void, or perhaps there was ‘lots of stuff’ already there that became ‘visible’ when G*d ‘turned on the Light’!

Various issues sometimes arise regarding the void:
1. Science cannot account for a very large part of the MASS of the universe.
2. Metaphysics states that the void is filled with energy which has not yet been detected by science. Science is learning that there are indeed energies to be found in some ‘places’ previously thought to be empty space.
3. Metaphysics states that the ‘big bang’ theory may not be the solution to the origin of the universe.
4. Both science and metaphysics often discuss matters pertaining to other dimensions. Where these ‘other dimensions’ [at least 12] may have a role in either the ‘big bang’ or the Creation could be anyone’s guess at this time, but science seems to be learning more about ‘other dimensions.’
5. Metaphysics states that the ‘void’ between the nucleus of an atom and its surrounding particles is teeming with a highly organized energy that we might best describe as ‘love’ and that this energy has consciousness!

These are just some of the ‘realities’ and possibilities. Surely we are a bit handicapped in our search when science cannot explore, at will, other dimensions where time and space may not be as we perceive them from our ‘reality’ . . . where even Pi may have a different value from the one with which we are almost familiar [science is still working on its ultimate value].

*   *   *   *   *

In the Wilkinson MS. [ca 1727] we may find such old rubrics as: “Q62. Where do [you] keep y’ Secretts as a Mason. Ans. In a bone box that Neither Opens or Shuts but with ivory keys, nine Inches or a Span from my Mou.”

Also appearing at this time are the Three Great Lights, representing the “Sun, Moon & Master Mason.”

In Questions 63 & 64 we may also find in the Wilkinson MS at this time:

Q63. Have you any Principles  Ans. I have.
Q64. What.       Ans. Point, Line, Superfices & Solid

Definitions in Euclid

A point is y’ wch hath no Part
A line is a length with’ a breadth
A superfices is y’ wch hath only length & breadth
A Solid is y’ wch hath length breadth & Depth

The corresponding words to the above may also be found in Prichard’s Masonry Dissected [1730]:

Q73. How many Principles are there in Masonry?  Ans. Four.
Q74. What are they?  Ans. Point, Line, Superfices and Solid.
Q75. Explain them.
   Ans. Point the Centre (round which the Master cannot err)
   Line Length without Breadth,
   Superfices Length and Breadth,
   Solid comprehends the whole.

It would obviously not be fair to build a case for Contemplative Geometry in Freemasonry on only what has been discussed up to this point. But we shall dwell here for awhile and develop some matters of relevance ... and then attend to some of the other symbols in their due course.

Keeping, then, within the discussion above, let us recognize that the above Wilkinson and Prichard Q&As have little changed in over 250 years from what we presently find in our ritual. We shall address a few representative American and UGLE workings to see where these Q&As have taken us. Let us look at the first and several early American appearances of this ‘geometry,’ and then do a little backtracking to the source of the American appearance[s] in the work of Preston.

The first American appearance may be found in the work of Thomas Smith Webb, who borrowed much of his work from Preston’s “Illustrations of Masonry.” Webb’s first monitorial book appeared on the scene in 1797. I have in hand an original edition of his 1805 edition, “The Freemason’s Monitor; or, Illustrations of Masonry: in Two Parts.” On page 67 of this book Webb wrote [the italics are ‘his’]:

[Thomas Smith Webb – 1805]

GEOMETRY

Geometry treats of the powers and properties of magnitude in general, where length, breadth, and thickness, are considered, from a point to a line, from a line to a superfices, and from a superfices to a solid.

A point is a dimensionless figure; or an indivisible part of space.
A line is a point continued, and a figure of one capacity, namely, length.
A superfices is a figure of two dimensions, namely, length and breadth.
A solid is a figure of three dimensions, namely, length breadth and thickness.

This same wording is given verbatim in The True Masonic Chart; or, Hieroglyphic Monitor, by R. W. Jeremy L. Cross, edited by Daniel Sickles, Masonic Publishing and Manufacturing Co. – 1870

In 1944 it appears on page 127 of the Allen Publishing Co. ‘ritual,’ King Solomon and His Followers:

GEOMETRY

(Never omit this)

Geometry treats of the powers and properties of magnitude in general, where length, breadth, and thickness, are considered, from a point to a line, from a line to a superfices, and from a superfices to a solid. [n.b. the same as in Webb]
A point is that which has position, but not magnitude, and is the beginning of all geometrical matter.
A line has length without breadth.
A superfices is that which has length, and breadth without thickness.
A solid is a magnitude which has length, breadth and thickness.

In some ‘rituals’ a variant to the above Geometry clause reads:

A Point is the beginning of all geometrical matter.
A Line is a continuation of the same.
A Superficies has length and breadth without a given thickness.
A Solid has length and breadth with a given thickness, which forms a cube and comprehends the whole.

The last line above, concerning the “Solid” is correct to a certain degree, but the FIRST geometric Solid is not a CUBE [the Cube is an ‘illusion’]. To comprehend this more clearly let us pause for a moment in the above discussion and more clearly ‘define’ a Point, a Line, a Superficies, and a Solid in terms of their appearance in the Craft ‘ritual’ – specifically from a mathematical and philosophical point of view.

**Point, Line, Superfices and Solid**

Many aspects of the Point, Line, Superficies and Solid have been previously discussed in Volume I of *Freemasonry and a View of the Perennial World Philosophy*, but will be set forth here, at the risk of repeating some of the previous discussions.

1. **The Point** – [ref. Volume I, Chapter VI, Section III, pages 62 and 63].

   Above it was written (from the Middle Chamber Lecture, 1944 edition) that a ‘point’ is “that which has position, but not magnitude, and is the beginning of all geometrical matter.”

   We will be looking a little further into this matter as we go along. A point is generally said to be that which has neither height, nor width, nor depth. If we may focus our attention on this for a moment, we will come to understand something of the deeper significance of it. To do this we will need to get off of the highway, off of the path, off of the trodden way and listen to that little voice inside of us which is the ultimate teacher of all that we ‘really know.’ The concept of the discussion which follows was not read in any book, nor heard in any class, but is presented to you for your consideration with an abiding faith in the little voice which relayed it to me.

   From where you are presently sitting, standing or laying down, pick a point in the ‘air’ (in space) to observe. Study it carefully and note that it IS a point, but that it has neither height, nor width, nor depth. Now, it doesn't really matter whether you are considering an atom, an ant, an elephant, a jumbo jet or a planet. When it comes to a ‘point’ it is enough to say that the ‘thing’ is, was or will be ‘there,’ at ‘that point’ . . . at a time that you experience as your ‘Now.’ That is enough to create the desired ‘focus.’ By way of illustration, please get a pencil or pen and a sheet of paper. Without making any mark on the paper, select a point of your own choosing, a little to the left of the center of the horizontally viewed sheet. Observing the point, become aware that the point you have selected has neither height, nor width, nor depth.

   Now take your pencil or pen and make a dot at the point you had selected. This is the way that we normally represent a point, as a dot, but remember that the mark you made is not the point you selected; it ‘marks’ the point, but it is not the point itself. In like fashion you could have selected any point in the universe upon which to focus, none of which would have had height, or width, or depth, but each of which could be marked in some manner or another, if only with words or a thought.

   Before we proceed to the next step, let's illustrate a related point. Immediately next to the dot you have just made, mark another one lightly and then make another dot about five inches to the right of the two. Your sheet should now have three dots, at three points, looking something like this:

   **Figure 6.3.1: The Focal Point.**
Now hold the sheet (or this page) at arms length from you in good light and look at the left dot (time for your glasses if you need them). Focus on the left dot and then look at the far right dot, focusing upon it. Now look from the far right dot to the far left dot and so on, back and forth slowly, focusing each time, and become aware that your eyeballs are moving each time you shift your focus from one dot to the other. Now look at the far left dot again and focus. Shift your focus to the dot immediately to the right of it and so on, back and forth slowly, focusing each time, and become aware that your eyeballs are moving each time you shift your focus. Now become aware that every ‘thing’ you see, other than the dot upon which you are focusing, is being perceived with your peripheral vision. Next become aware that you are only seeing the ‘surface’ of the dot, but can see neither the back of the sheet, nor the back of the dot upon it. This is why the geometry which we are here discussing is sometimes referred to as ‘Contemplative Geometry.’

Take a look around the room and see how much of it you are really ‘seeing’ -- focusing upon -- and how much of it you are ‘perceiving’ -- or ‘seeing’ with your ‘perceptual’ vision. A further discussion of this ‘sense’ and ‘perception’ is in Chapter VII of this book [Volume I], “The Five Senses and Perception.”

In the Craft, the Point is sometimes referred to in ‘its’ relationship to the [bounded] Circle, as the ‘point’ from which “it is impossible that he [the Mason] should materially err” [from the Third Section, Part I, Historical Lecture, 1st Degree – New York]. There is yet another whole discussion that could appertain to this aspect of the ‘Point within the Circle,’ but for the moment let us just consider one possible aspect of this ‘symbol.’

Philosophically this may be referred to as the ‘manifest Point.’ This is the Point with which we tend to feel comfortable, in terms of our 3-dimensional perception of ‘reality.’ We tend to think that in this representation we can relate to a Time and a Position of a ‘thing’ or an ‘experience’ . . . of something that IS, WAS or WILL BE manifest, desired or intended. Philosophically, too, the circumference of the Circle tends to indicate the ‘limit’ at or beyond which the ‘thing’ or ‘experience’ can no longer be manifest to our 3-dimensional ‘reality’ or possibly the Point beyond which we perceive that it may or would not be ‘beneficial’ to our 3-dimensional ‘reality.’

Of this ‘Point within the Circle it has been written [in Magus Incognito, The Secret Doctrine of The Rosicrucians, Barnes & Noble, Inc. edition, 1993. 252 pgs.]:

The Germ within the Cosmic Egg takes unto itself Form. The Flame [or Spark] is re-kindled. Time begins. A Thing exists. Action begins. The Pairs of Opposites [poise ready to] spring into being. The World Soul is born, and awakens into manifestation. The first rays of the new Cosmic Day break over the horizon

The ‘ancients’ were quite aware of the philosophical concept of the ‘Point within the Circle,’ but they were ALSO aware of the Circle WITHOUT A POINT in the Center! To them this represented ‘things’ that were NOT necessarily manifest to our 3-dimensional ‘reality,’ but otherwise have another form or a multidimensional reality – what to us would be ‘unmanifest.’ This ‘unmanifest,’ potential or otherwise, was represented as a disk . . .
sometimes of Black, sometime of White . . . sometime of Gold or sometimes Clear, but nonetheless a Circle WITHOUT a Point at its Center.

Of the Circle, without the Point in the Center, it has been written [ibid.]:

The Eternal Parent was wrapped in the Sleep of the Cosmic Night.

**Light there was not: for the Flame of Spirit was not yet rekindled.**

Time there was not: for Change had not re-begun.

Things there were not: for Form had not re-presented itself.

Action there was not: for there were no Things to act.

The Pairs of Opposites there were not: for there were no Things to manifest Polarity.

The Eternal Parent, causeless, indivisible, changeless, infinite, rested in unconscious, dreamless sleep.

Other than the Eternal Parent there was Naught, either Real or Apparent.

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In the above two ‘aphorisms,’ as they are sometimes called, two lines are in bold type. Along with the other lines, these might call to contemplative Mason, or similar mind . . . the phrase, “Let there be Light!” as it appears in the First Degree of the Craft [which, too, might more appropriately be considered as a ‘Fourth’ Degree manifestation for reasons which will be discussed further along in this present Volume].

For now, we have become quite abstruse in the present discussion, but both mathematically and philosophically some important distinctions concerning the Point have been discussed. A further discussion could continue on this most interesting subject, but the contemplative mind will pursue this at a more appropriate ‘time.’

2. **The Line**

For a more complete discussion of this the reader is again invited to Volume I, Chapter 6, Section III, pages 63-65. Suffice it here to say that a line extended to ‘infinity’ could be differently considered under Einstein’s General Theory of Relativity. The ‘Line’ referred to in the Craft might more correctly be called, what is now more politically and scientifically correct, a ‘line segment.’ The implication here is that this more ‘acceptable’ Line segment has a Beginning and an End [albeit that the beginning and end may be light-years or millennia ‘distant’ from each other . . . in 3-dimensional ‘reality’]. It is this Line of which we may have heard: “The shortest distance between two Points is a straight line [segment].”

Another important consideration of this Line is further discussed in the Chapter of this present Volume II under the title of “Some Observations concerning the Receptions of a Mason,” to which your attention is invited. There you will find a discussion of the ‘Line’ relative to the 2nd Degree of the Craft and the [angle of a] ‘Square.’

3. **The Superfices**

If a Line [segment] is concerned, in part, with the ‘shortest distance between two Points, the first Superfices to appear [not yet in 3-dimensional ‘reality’] would be that ‘figure’ which consists of THREE Points. In that this ‘figure’ has no Height, it would theoretically not be visible in 3-dimensional reality. For an excellent perspective of this the reader is cordially invited to read the delightful book, Flatland – A Romance of Many Dimensions, by Edwin A. Abbot. This wonderful little book is available from Dover Publications, 83 pages for about $1.00 or $2.00.

This first 3-pointed superfi ces would, of course, define the Triangle, the first of which appears is also an Equilateral Triangle [actually a double one]. A further discussion of this appears in Volume I, Chapter VI, Section III, pages 65-67. It is this Equilateral Triangle that is the basis of the First Proposition of Euclid, of all of the Platonic Solids, the Gothic Arch, the Vesica Pisces and LIGHT! Another discussion of this appears in the present Volume II under the title of “Some Observations concerning the Receptions of a Mason,” to which your attention is invited.
4. The Solid –

We now come to the Solid, which if logic would be at play here that the Superfices consists of THREE points, the First Solid would consist of FOUR points. A Solid consisting of FOUR Points is NOT a CUBE in the sense of that given above as:

“A Solid has length and breadth with a given thickness, which forms a **cube** and comprehends the whole.”

The First Solid is a Tetrahedron, or four equilateral triangles that form the first ‘object’ that is the visible building-block to 3-dimensional ‘reality.’ This tetrahedron is the ‘form’ for DNA, for water and ‘contains’ within it the forms of carbon, silicon dioxide and other ‘tetrahedronal’ and ‘octahedronal’ atomic or molecular forms.

In entering 3-dimensional ‘reality,’ however, we tend to have an awareness that if there is an ‘up’... there is also an inseparable ‘down.’ If there is a left... there must be a right; if an ‘in’ there must be an ‘out,’ and so forth. The Tetrahedron is ‘twinned’ in such a pairing, to form a ‘Star-Tetrahedron,’ or some call it, a cubic “Star of David.”

Only when we connect the points of the Star Tetrahedron do we have a CUBE. Without the force of the ‘atomic’ Cube would collapse. Build a Cube with thread and bar-straws or coffee stirrers, and see for yourself how it will collapse. The eight points of the Cube, connected by lines do not appear to have 3D structural integrity to permit the cube to ‘stand on its own,’ without the supporting force of the Star Tetrahedron.

A further discussion of the Star Tetrahedron and Cube appears in Volume I, Chapter VI, Section III, pages 66-74.

Now, am I to suppose that Freemasonry intended all of the above discussion on the Point, Line, Superfices and Solid to apply specifically to the Fraternity of Free and Accepted Masons? I definitely do not ever recalling anyone in my Lodge talking of this in any of these terms. There are no footnotes in my ‘ritual book’ that speak of such things. None of the Degrees explain the Point, Line, Superfices and Solid any further than the one[s] given above... or perhaps I may be mistaken.

**Part V**

**The Receptions of a Free-Mason**

*Point * Line * Superfices * Solid*