SOLVING the MYSTERY of the TEOTIHUACAN GRIDS ANGLE [15.5],
{first posted Hidden Mission Forum [Not Only 19.5] thread Feb 2008.}

The city of Teotihuacan is intricately laid out in distinct grid patterns,
which are offset form what is called the cardinal points.
The Pyramid of the Sun is offset at an angle of [15.5] degrees from the position
of the sunset of August 13, and this August 13 is known as the starting date
of the Mayan Long Count of [1872000] days, or [13] baktuns.
The Teotihuacan Street of the Dead is aligned 15.5 degrees east of north
to 15.5 degrees west of south, long with the entire grid work layout
of the city of Teotihuacan having offset angles of [15.5] degrees.
The Teotihuacan Grid angles, and the Pyramid of the Sun angle to the
August 13 sunset have been an unsolved mystery since the site was
discovered and investigated by many scientists and mathematicians.
My theory fundamentally takes the [15.5] angle right into the Mayan
spiritual calendar of the [260] Tzolkin, and solves the mystery.

Starting with a "seed formula" which can be interpreted as a source formula
For the defining calculative formulas which express this mathematical theory
of the Teotihuacan grids and the offset angle of [15.5] degrees.
Seed Formula:
Tangent [15.5] degrees x square root [13] = [1],…….[0.9999],
The sine [15.5] degrees x square root [14] = [1],……[0.9999].

An obvious relationship results from the above seed formula
between the square roots [13] and the [14].
So this author having released the Mars Pentad Time Pyramids study,
instantly recognized the possible connection with planetary timelines.

First with Earth and the "Lunar Year".
Earth has 13 full moons each year corresponding to a lunar calendar.
Staying within the constructs of the Tzolkin style calendar [13 x 20] = [260],
and utilizing the [13] as Cosmic Calendar constant for this solar system:
Each Earth week has [7] days x 4 weeks = [28],
[13] x [28] = [364] Earth Lunar Year,
[14] x [26] = [364],
and that [26] is the same numeric set that the Tzolkin [260] is.

One MesoAmerican pyramid has [4] sets of steps ascending each side
of exactly [91] steps each to equal [364], and the top platform
serving all four sides of steps is considered [365].
The Lunar Earth Year [364] is a tetrahedral Pascal's triangle number,
and Teotihuacan is located at approximately [19.5] degrees north,
with [19.5] being the premier tetrahedral angle,
so well portrayed in Richard Hoagland's sphere of intersecting tetrahdrons
at the [19.5] angle to the sphere or equator.

Back to the Seed Formula:
Tangent [15.5] degrees x square root [13] = [1],…….[0.9999],
The sine [15.5] degrees x square root [14] = [1],……[0.9999].
The square roots of [13 and 14] gave me an idea as to how to interpret
a possible connective formula to planetary and Earth timelines,
and even possibly the geometric lengths in the Mars Pentad.

To start with the Mars and Venus and Mercury synods is always best.
Tangent [15.5] x [780] Mars synod = [x], then divide [x] by sqrt [13] = [**60**],
Tangent [15.5] x [585] Venus synod = [x], then divide [x] by sqrt [13] = [**45**],
Tangent [15.5] x [117] Mercury synod = [x], then divide [x] by sqrt [13] = [**9**],
Or conversely one can simply do this pattern as well:
Tangent [15.5] x SQRT [780] Mars synod = [x], then [x] squared = sqrt [**60**].
Either way the ultimate result is always the multiplicative of the [13].
Tangent [15.5] x [260] Tzolkin = [x], then divide [x] by sqrt [13] = [20],

The above equation alone should be enough evidence of the intent
of the Teotihuacan grids angle of [15.5] degrees,
and The Mayan Tzolkin [260] = [13] x [20].

Notice in the prior page synods results:
Mars [**60**], Venus [**45**], and Mercury [**9**].

[13] x [**60**] = [780] Mars synod,
[13] x [**45**] = [585] Venus synod,
[13] x [**9**] = [117] Mercury synod,…and [5] x [117] Me = [585] Venus synod.

Applying the formula to the Mayan Dresden Codex [702] Mars constant,

Tangent [15.5] x [702] Mars = [x], then divide [x] by sqrt [13] = [54].

Notice now that the number [54] is a pentagonal based number
being exactly half of each of the [108] degree pentagon angles.

This author uses what is known as the decimal variation process,
or some refer to this as the "floating decimal" application,
{see Mars Pentad Time Pyramids pdf in Hidden Mission Journal},
and there fore using the number [54]
from the equation quotient above, the numeric sequences of **[54]** follow:

[0.54]--- > [5.4]--- >[54]--- > [540],
to give the reader an idea of the "floating decimal system".

Knowing that Teotihuacan is located at tetrahedral [19.5] degrees,
We will try something very novel with unusually fine results.

Applying the Tangent [15.5] Seed Formula:

Tangent [15.5] x EXACT tetrahedral [19.47122061] = **[5.4]**!
That is not a coincidence, it is perfectly in tune with [13] x [54] = [702] Mars.
Try it this way:
Tangent [15.5] x [702] = [x], then dvide [x] by sqrt [13] = **[54].**
This above is the conversion scheme to the pentagonal math,
Using EXACT tetrahedral [19.47122061].

For curiousity sake I went into the Mars Pentad square root lengths.
These would of course be when mounds EA = [2] units,
And the various Pentad lengths are square roots of [2,3,4,5,6,8,9,12].
Pentad interior square root lengths such as square roots of [0.33333], [0.66666],
[2.66666] etc. Also Notice that the sine of [19.5] = [**0.33333**]!
and the Jupiter sidereal of [4333. 33333] = [13] x [**333. 33333**].
A different equation emerges and here are a few examples.
Tan [15.5] x sqrt [6] = [x], take [1 / x] and square it = **[2.167],**
Having performed the Time Pyramid math I recognized this immediately,
As coincident to the unique numeric set **[2166666].**
There is an approximate [3 / 10000] differential or factor of error.
[2.16666]------- > [2.167],

[364] Earth Lunar year divided by [1680] Ceres sidereal = [**0.216666**],
Tetrahedral [19.5] divided by Mayan [9] Lords of the Underworld = **[2.1666],**
The Tzolkin [260] divided by the Cydonia [12] mounds = **[21.6666],**
The Jupiter sidereal Vigesimal is [4333.33333] = [20] x [216.66666].

One can quickly see the correlations to planetary timeline “harmonics”.
Another for comparisons:
Tan [15.5] x sqrt [5] = [x], take [1 / x] and square it = [**2.6**] rounded.
This is a distinct coincidence to the set of the [260] Tzolkin.

Certainly factors of error appear, but they negligible in the context
of the overwhelming and overall synchronicities of the numbers.
Using interior subdivisional Pentad lengths:

Tan [15.5] x sqrt [0.66666] [[x], take [1 / x] and square it = [19.503],
displaying a factor of error of only [3 / 1000] off tetrahedral [19.500].

Returning to the original premise of the [15.5] angle at teotihuacan:
Immediately one notices therefore that Tangent [15.5] = [1 / sqrt 13],
So the opposite angle [74.5] degrees must have a tangent of Sqrt [13].

[90 – 15.5] degrees = [74.5] degrees.
Tangent of [74.5] degrees = [3.605883509]
Square Root [13] =……..[3.605551275],

subtracting the two for the differential of basically [0.0003322],
in insignificant factor of error of approximately [3 / 10,000].

This angle basically performs all the exact possibilities that the [15.5] does,
however in an obvious but wonderfully clear fashion to the [260] Tzolkin.

Tan [74.5] x sqrt [1] = [x], and then [x] squared = [13],
Tan [74.5] x sqrt [2] = [x], and then [x] squared = [26],
Tan [74.5] x sqrt [3] = [x], and then [x] squared = [39],
Tan [74.5] x sqrt [4] = [x] and then [x] squared = [52],
Tan [74.5] x sqrt [5] = [x], and then [x] squared = [65],

One can easily see the multiples of [13] show up in order.

Tan [74.5] x sqrt [7] = [x], and then [x] squared = [91], and [4 x 91] = [364] ELY,
Tan [74.5] x sqrt [15] = [x], and then [x] squared = [195]…..[10 x 19.5],
Tan [74.5] x sqrt [20] = [x], and then [x] squared = [260] Tzolkin,

And so the first [20] square roots create the Tzolkin equation
From the Teotihuacan [15.5 and 74.5] degree angle tangents.

The above formula also derives straight into the numbers without square roots:
Below are rounded:

Tan [74.5] x [1] = [x], and then [x] squared = [13]
Tan [74.5] x [2] = [x], and then [x] squared = [52]
Tan [74.5] x [3] = [x], and then [x] squared = [117] Mercury synod.
Tan [74.5] x [4] = [x], and then [x] squared = [208] = [8 x 26]
Tan [74.5] x [5] = [x], and then [x] squared = [325] = [13] x [25] or 780M x [5/12],
Tan [74.5] x [6] = [x], and then [x] squared = [468] = [0.6 x 780 M]

Tan [74.5] x [12] = [x], and then [x] squared = [1872],
or the numeric set of the Mayan Long Count of [**1872000**].
Examining factor of error in this style of approach:
Tan [74.5] x [12] = [x], and then [x] squared = [1872],--- > [1872.345]
Therefore the error factor equals [0.345] divided by [1872] = [2 / 10,000].
Not bad!

Tan [74.5] x [20] = [x], and then [x] squared = [5200], or [20] x 260 Tzolkin.

This is complete enough of an analysis to show the distinct connections
of the Teotihuacan grid angles of [15.5] degrees to the Tzolkin calendar,
and the connectivities to the planetary timelines.
Below will be other comparatives to follow for further analytic discretion,
Tangent [15.5] x [689] Mars sidereal = [x], and [x] sq = [36510],
Almost exactly 100 earth years!

Mars sidereal [689] = [13] x [**53**], and [**53**] = [19.5] x math constant [e].
Tan [74.5] x [**53**] = [x], and [x] squared =…….[36523.73],
The EXACT Earth year is [365.24] days x 100 = [36524.00]!
Amazingly close on the money, off EXACT by only [1 / 100,000] percentage!

Tangent [15.5] x the Pentad [26.5] degree angle = [x], and [x] sq = [54]!
Tangent [15.5] x the Pentad [19.5] degree angle = [x], and [x] sq = [**29.24461**]
This is an odd number, but the author recognizes it
as a distinct planetary time function of the Venus Earth [2925] day cycle.
Venus Earth cycle [2925] = [5] x [**585**] Venus synod.
[**29.24461**] divided by [5] =……..[5.85]……exact at [5.849].

The Side face angle of the Pyramid of the Sun is known to have the same
angle as the top half of the Egyptian Bent pyramid.
This angle is argued over as to the exactness with some sites claiming
an angle of [43.30] degrees, and a larger group of investigations claims
this angle to be approximately [43.22] degrees.

So this author will attempt to derive many possibilities of finding
a mathematical correlation to the either angle proposed.
Numerous possibilities arise with the [43.30] degree angle,
and one takes a variety of right triangles with specific heights and base lengths
to attain a an arctangent to find a coincident angle.
One right triangle of height [Pi] and base length [3.333333] has angle [43.303].
One right triangle of height [Pi] squared and base length [2 x Phi] sq.= [43.303].

The [**43.22**] degree angle is more difficult.
One would have to refer to my pdf for the reasoning following the application
of decimal variation of important numbers right into the square roots.
Example: [707]---- >[70.7]---- >[7.07]---- > Sqrt [7.07] , now follow below:
Simply, the investigations Mayan Dresden Codex found a “calculative”
Of [702] for Mars, and further mathematical investigations procured
a short but definitive period of history where Mars:
exhibited the [**707**] day sidereal corresponding to the equilateral triangle
of [45-45-90] degrees sines and cosines as [0.**707**106781].
To that end, the Mars Pentad Grid of [2] by Sqrt [8] produces the length
Sqrt [8] = 2 x Sqrt [2].
Therefore as a major coincident take right triangle:
Height Sqrt [7.07] and Base length Sqrt [8] to get arctangent of [0.940079784],
and that is the angle [**43.23**] degrees!