Integers, used as modular multiples for diameters of the Atlantis rings according to Critias, are Pell numbers. They can be located in the Pell number pattern with the aid of the platonic lambda. They are in the same ratio as the planetary distances.

The Acropolis of Atlantis afterCritias was situated on a round island, 5 stades across, surrounded alternatively by circular canals and dry rings, having diameters of 7, 11, 15, 21, and 27, stades. The listed numbers are terms of the following Pell series:

\[
3 - 1 - 5 - 11 - 27 - \ldots
\]
\[
5 - 1 - 7 - 15 - \ldots
\]
\[
6 - 1 - 8 - 17 - 42 - \ldots
\]

They can be detected with the aid of the numbers of the platonic lambda in the similar way as the numbers of diameters of the Stonehenge rings. (See illustration 1)

---


2 One stade of 600 feet equals 0.201 km, if the 'megalithic foot', found in the Stonehenge composition, is the basis. See the article T. Kurent, Stonehenge and the Vitruvian Amusium, *Architectural Association Quarterly* vol. 7 no. 3, London 1975.

3 The platonic lambda is composed of the figured numbers 1, 2, 3, 4, 9, 8, 27 (in that order), usually arranged in the form resembling the Greek letter:

\[
\begin{array}{cccc}
1 & & & \\
2 & 3 & & \\
4 & & 9 & \\
8 & & & 27
\end{array}
\]

One, two, three, four, and nine, pebbles stay for the first five numbers; number 8 is represented by four, double spaced apart, pebbles; number 27 is represented simply by nine stones. It would indeed be inconvenient to handle all of the twentyseven stones. For further reading:


Thus, if the first pebble covers the Pell term 5, the second one covers number 7, the third one hides 11, and the fourth one covers term 15. The ninth calculus starting at the term 15 its clockwise movement stops at 42 (which is but a double of the required number 21). Starting at 42, the figured number eight (or double-four) points to the term 27.

The wider Atlantis is enclosed in the circular walls, 127 stades in diameter. How can a figured number twenty seven, starting from the Pell term 27, find the number 127?

Starting at the term 27, which indicates the diameter of the largest Atlantis circular canal, the figured number twenty seven, replaced for practical reason with nine pebbles, can locate with either clockwise or counterclockwise movement four different numbers: 9, 53, 13, and 77.

The listed numbers stay in the following Pell number-pattern:

\[
\begin{align*}
1 & - 1 - 3 - 7 - 17 \rightarrow 41 \rightarrow 99 \\
2 & - 1 - 4 - 9 \quad \uparrow 22 - 53 - 128 \\
3 & - 1 - 5 - 11 \quad \uparrow \uparrow 27 - 65 \leftarrow 157 \\
4 & - 1 - 6 - 13 - 32 - 77 - 186 \\
5 & - 1 - 7 - 15 - 37 - 89 - 215
\end{align*}
\]

We already know that a Pell term means also its repeated doubles. If this is so, the terms

\[
9 \quad 53 \quad 13 \quad 77
\]

stay also for numbers

\[
144 - 106 - 104 - 154^6.
\]

The required number 127 is the arithmetical mean of the listed numbers 7:

\[
(144+106+104+154) : 4 = 127.
\]

The Pell numbers 5, 7, 11, 15, 21, 27, and the multiples of 9, 53, 13, and 77, implied in the term 127, defining Atlantis diameters, are in the same ratio as the planetary distances form the Sun. The planetary orbits are nearly circular, but those of Mercury, Mars, and

---

5 A Pell term represents not only itself, but also its related numbers, which are 2, 4, 8 . . . and/or 10, 100, 1000 . . . times larger or smaller. Since Pell numbers are integers, the half of an odd number or the arithmetical mean of two Pell numbers, one odd and one even, are rounded to a whole number.

6 \(9 \cdot 2^4 = 144; \ 53 \cdot 2 = 106; \ 13 \cdot 2^3 = 104; \ 77 \cdot 2 = 154.\)

7 Number 127 is to be regarded in this case as the common name of the numbers 9, 53, 13, and 77.
Pluto, are more elliptical. Accordingly, the listed numbers are the mean planetary distances, except for the three elliptically orbiting planets, which are presented with their respective minimal and maximal distance form the Sun. (See illustration 2)

Diameters of Atlantis rings after Critias are
5, 7, 11, 15, 21, and 27, stades.

Their respective radii translated in metres are
502, 703, 1105, 1575, 2110, and 2713, m.

The minimal and maximal distance in \(10^5\) km of Mercury, mean distances of Venus and Earth, and both extreme radii of the Martian orbit\(^8\) are practically in the same ratio\(^9\):

\[
459, 697, 1082, 1498, 2067, \text{ and } 2491, \text{ in } 10^5 \text{ km}^{10}.
\]

Multiples of numbers 9, 53, 13, and 77, implied in the number 127, can result in the following dimensions:

36, 77, 144, 288, 424, 424, 576, and 832, stades, respectively.\(^{11}\)

From the listed diameters in stades the following metric radii can be calculated:

3618, 7738, 14472, 28944, 42612, 42612, 57888, and 83616, m.

The mean distances of the Asteroid belt, of Jupiter, Saturn, Uranus, Neptune, and the minimal, mean, and maximal, distance of Pluto\(^8\), are nearly in the same ratio\(^9\):

3600, 7780, 14270, 28696, 44966, 44250, 59000, and 73750
in \(10^5\) km\(^{10}\).

---

\(^{8}\) See the excellent compendium in the *Scientific American* vol. 233 no. 3, september 1975, composed of the following articles:

— A. G. W. Cameron, The Origin and Evolution of the Solar System;
— E. N. Parker, The Sun;
— B. C. Murray, Mercury;
— A. and L. Young, Venus;
— R. Siever, The Earth;
— J. A. Wood, The Moon;
— J. B. Pollack, Mars;
— J. H. Wolfe, Jupiter;
— D. M. Hunten, The Outer Planets;
— W. K. Hartmann, The Smaller Bodies of the Solar System;
— J. A. Van Allen, Interplanetary Particles and Fields.

\(^{9}\) Atlantis diameters after Critias and the planetary distances are therefore in the ratio 1:10\(^6\), or in scale 1m=10\(^8\) km.

\(^{10}\) The listed numbers of planetary distances are relatively slightly smaller than numbers of metric Atlantis radii. If for the Atlantis stade somewhat larger measure would be taken, the gap between the compared distances and radii would be narrower.

\(^{11}\) \(9\cdot2^2=36\); 77=77; 9·2\(^4\)=144; 9·2\(^5\)=288; 53·2\(^2\)=424; 9·2\(^6\)=576; 13·2\(^7\)=832.
The seventh diameter of Atlantis, i.e. the number 127, decoded with the seventh number of the platonic lambda, implies the orbital radii of the outer planets. It is the 'pretty reason why the seven stars are no more than seven'\textsuperscript{12}.

The rotation of planets is simulated in the clockwise movement of lambda numbers across the Pell number-pattern, with the exception for Venus and Uranus, revolving in the opposite direction. Their retrograde rotation is mirrored in the counter-clockwise movement of the figured number three, decoding the term 11, symbolizing the distance of Venus, and in the counterclockwise movement of the figured number twenty seven (nine pebbles) starting form the Pell term 27 and decoding the term 9, which stays for Uranus\textsuperscript{13}. However, term 9 can be reached in the clockwise movement also. In this case its multiples symbolize the distance of Phaëthon, Saturn, and Pluto.

Atlantis is discussed by Plato not only in \textit{Critias}, but also in \textit{Timaeus}, devoted to the composition of Cosmos\textsuperscript{14} with the aid of lambda numbers\textsuperscript{15}.

According to Plato ,,this Cosmos is beautiful ... (and) should be a Copy of something ... The Constructor of Cosmos ... fashioned it to be one single octagram (ή ψυχή, the Soul)... compounded out of... a circle (τὸ αὐτὸ, the Same)... a square (τὸ θάτερον, the Other) ... and an octagon (ή οὐσία, the third form of Being)... It has been constructed with the aid of Pell and lambda numbers (ὁ νοῦς καὶ ἡ φρόνησις, the reason and thought)\textsuperscript{16}.

Illustration 1.

Diameters of the Atlantis rings, given by Critias in stades, are Pell numbers. Their location in the Pell number-pattern can be decoded with aid of the figured numbers assembled in the platonic lambda.

\textsuperscript{12} \textit{Fool}. ... The reason why the seven stars are no more than seven is a pretty reason.

\textit{Lear}. Because they are not eight?

\textit{Fool}. Yes, indeed: thou wouldst make a good fool.

(\textit{King Lear}, Act I, Scene V)

\textsuperscript{13} The first of my students to explain the anomaly of the counterclockwise movement of the third lambda number was architect Jan Skoberne.

\textsuperscript{14} The Greek word κόσμος means — according to Liddell — Scott — Jones, \textit{A Greek—English Lexicon}, s.v. κόσμος (p. 985): 1. order; 2. good order; 3. form; 4. government; 5. ornament ,décoration; 6. world—order, universe etc. To this meanings, it should be added: ,,the way of building, modular coordination“; considering the aesthetic component in the meaning of the term, κόσμος can be translated also as ,,beautiful composition“.

The Greek verb κοσμέω, of the same root, has no English equivalent. It means: to set in beautiful order.

\textsuperscript{15} Compare the vocabulary and my unorthodox traslation of some key sentences of \textit{Timaeus} in T. Kurent, Stonehenge is a Copy of the Platonic Cosmos Described in the Timaeus, sent to \textit{Architectural Association Quarterly}, London, in 1976.

\textsuperscript{16} In 1883 W. S. Blacket believed that there is a connection between Stonehenge, Atlantis, and Plato. See — G. S. Hawkins, \textit{Stonehenge Decoded}, Fontana/Collins 1975, page 46.
PLATONIC LAMBDA

PELL NUMBER PATTERN

100 πόδες = πλέθρον = 33.5 m
600 πόδες = στάδιον = 201.0 m
2400 πόδες = τεττυχόν = 804.0 m
7200 πόδες = δόλιχος = 2412.0 m

1 foot = 335 mm

THE CIRCULAR ATLANTIS WALLS

Διαμετροί
127 στάδια
27
21
15
11
7
5

Atlantikos pontos

Platonic Lambda

Pell Number Pattern
<table>
<thead>
<tr>
<th></th>
<th>ATLANTIS RINGS AFTER CRITIAS</th>
<th>DISTANCE FROM THE SUN</th>
<th>DIFFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DIAMETERS a stades</td>
<td>RADII b stades</td>
<td>c m</td>
</tr>
<tr>
<td>MERCURY</td>
<td>minimum 6              5</td>
<td>2,5               603,00</td>
<td>502,5</td>
</tr>
<tr>
<td></td>
<td>mean 7                 3</td>
<td>3,5               703,5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>maximum 11            7,5</td>
<td>1105,5</td>
<td></td>
</tr>
<tr>
<td>VENUS</td>
<td>minimum 15            7,5</td>
<td>1575</td>
<td></td>
</tr>
<tr>
<td>EARTH</td>
<td>mean 21              10,5</td>
<td>2110,5</td>
<td></td>
</tr>
<tr>
<td>MARS</td>
<td>minimum 24            12</td>
<td>2412</td>
<td>2713,5</td>
</tr>
<tr>
<td></td>
<td>mean 27              135</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHAETHON</td>
<td>minimum 9            18</td>
<td>3618</td>
<td></td>
</tr>
<tr>
<td></td>
<td>mean 36              3618</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>maximum 21           4221</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 48               4824</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JUPITER</td>
<td>mean 77              38,5</td>
<td>7738,5</td>
<td>7409</td>
</tr>
<tr>
<td>SATURN</td>
<td>mean 9               72</td>
<td>14472</td>
<td>13470</td>
</tr>
<tr>
<td>URANUS</td>
<td>mean 9               144</td>
<td>28944</td>
<td>27350</td>
</tr>
<tr>
<td>NEPTUNE</td>
<td>mean 53              212</td>
<td>42612</td>
<td>44560</td>
</tr>
<tr>
<td>PLUTO</td>
<td>minimum 53           212</td>
<td>42612</td>
<td>44250</td>
</tr>
<tr>
<td></td>
<td>mean 9               576</td>
<td>57888</td>
<td></td>
</tr>
<tr>
<td></td>
<td>maximum 13           832</td>
<td>83616</td>
<td></td>
</tr>
</tbody>
</table>

The table provides distances from the sun in 10^5 km for various planets and moons, along with their differences and percentages.
ἡ ψυχή (Timaeus 34b) = τὸ αὐτὸ (35a) + τὸ θάτερον (35a) + ἡ οὐδία (35b)

δ' νοῦς καὶ ἡ φρόνησις (Timaeus 34a)
Illustration 2.

The numerical comparison between the radii of Atlantis and the orbital radii of planets.

a. Sizes after Critias and distances of planets from the Sun are in the ratio $1 : 10^8$, or in scale $1m = 10^5$ km.

b. Critias gives diameters of the Atlantis rings in stades equal to 600 feet. Taking for a foot the length of 335 mm, which is the 'megaliithic foot' of Stonehenge, one stade is 0.201 km long.

c. The mean distance between two extremes.

d. Phaëthon stays as a synonym for the ten central asteroids. Distances of asteroids closest to, and farthest from, the Sun are not taken in account.

e. The size of 127 stades, given by Critias as the diameter of the circumferential Atlantis walls, is, according to the platonic lambda, the arithmetical mean of the Pell terms 9, 53, 13, and 77:

$$(144 + 106 + 104 + 154) : 4 = 127.$$ 

f. The average difference between mean, minimal and maximal planetary distance from the Sun and the respective sizes of the Atlantis rings in the scale $1 : 10^8$ is $\Sigma/16 = 3.8\%$.

Taking in account only the mean distances, the inaccuracy of the platonic Atlantis is $\Sigma/10 = 2.5\%$.

Illustration 3.

The planetary orbits and the Atlantis circles practically coincide when relative scales are taken into account.

Illustration 4.

An octagram is composed of circles, squares, and octagons. It evokes the platonic "Soul" (ἡ ψυχή) and its substances, i.e. "the Same" (τὸ αὐτὸ), "the Other" (τὸ άλλα), and "the Third form of Being, composed out of the Twain" (ἡ τρίτη ὑποστάσεις).

Pell and lambda numbers have a role comparable to the platonic νοῦς και φρόνησις ("Reason and Intelligence"; all English translation of the terms by R. G. Bury).

*Ljubljana.*

T. Kurent.