

Base 9 on the Whorl?

The Urth list — 11 messages, 5 voices, 11 May 2002

<https://urth.darkrealm.vip/thread/urth/3255>

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Robert Borski — 11 May 2002, 18:07

In *_Nightside the Long Sun_*, on p. 29, Wolfe has Maytera Marble presiding over a mathematics lesson, "watching the children take nineteen from twenty-nine and get nine, add seven and seventeen and get twenty-three." This, however, is only possible in a base 9 numbering system, and a strange one at that, since a conventional base 9 system would only include the digits 0 to 8 (there should thus no 9, 19, or 29).

The following questions therefore ensue:

Since the number 9 is present, are we to assume that one of the other numbers has been retired? (If so, it's not evidenced in the Seal of Pas, which contains all ten digits from 0 - 9. But could these sequences be artifacts of the pre-launch numbering system?)

Equally possible, I suppose, is the notion that the Whorl, like the ancient Romans, uses no 0 --meaning that the sequence after the first and second enneads runs ...8, 9, 11, 12... and 18, 19, 21, 22. But can this be supported by text citations: i.e., do the numbers 10, 20, 30, etc., occur anywhere in the narrative?

Also, if we accept the validity of the base 9 system (doubtless enacted by the Whorl gods to reinforce their sanctity, just as Pas's children have co-opted the days of the week), how does this change the facts, figures and chronology of the Long and Short Sun books--from ages of the characters to lengths of the year--or even, say, the hypothetical distance between Blue and Green at apogee and perigee?

Robert Borski

Andy Robertson — 11 May 2002, 18:25 · follows Robert Borski

----- Original Message -----

From: "Robert Borski" <rborski at charter.net>

To: <urth at urth.net>

Sent: Saturday, May 11, 2002 7:07 PM

Subject: (urth) Base 9 on the Whorl?

In *_Nightside the Long Sun_*, on p. 29, Wolfe has Maytera Marble presiding over a mathematics lesson, "watching the children take nineteen from twenty-nine and get nine, add seven and seventeen and get twenty-three."

Uh

Either:

1) They are actually from PLANET ZOG

<http://home.clara.net/andywrobertson/zogcount.html>

Or

2) The children are in their childish way making mistakes.

By the way $7 + 17 = 25$ in base 9

hartshorn

Robert Borski — 12 May 2002, 06:54 · follows Andy Robertson

hartshorn having attempted to throttle my base 9 theory thusly:

"The children are in their childish way making mistakes."

"By the way $7 + 17 = 25$ in base 9"

Yes. But if indeed the children are making mistakes, they are making the less likely one. $29 - 19$ in base 10 is almost impossible to get wrong--a like number minus another like number has to be zero--it's about the easiest calculation you can make and among the first we learn as children--especially since we have ten fingers and ten toes to help abacus our solution. But a calculation in base 9 of $7 + 17$ is much more difficult, even for adults; you need to figure out (or memorize by rote) that the number 17 only contains 16 integers (and yes I know in base 9 the number 17 contains by definition 17 integers, but you know what I mean), add the $7 + 16$ and get 23, then readjust to compensate out of base 10 (as I did not) for the missing 10 and 20 in the final tallying. Plus as in base 10 there may be special "rules" of 9 (e.g., any large number whose individual numbers add up to nine or a number that can be reduced to nine is divisible by nine), only in this case the rule would take on additional religious significance, something akin to "In this column here, children, like minus like always equals nine--because as we know the Nine can never truly be reduced. Bless Pas, Echidna, and their children."

I'll also bet that if you ask first graders to subtract 19 from 29, they will almost always get it right; whereas if you ask most adults to add $7 + 17$ in base 9, they will frequently get it wrong.

In other words I stand by my original premise: is it possible base 9 is being used on the Whorl?

Robert Borski

Kevin J. Maroney — 12 May 2002, 07:11 · follows Robert Borski

At 02:54 AM 5/12/02, Robert wrote:

Yes. But if indeed the children are making mistakes, they are making the less likely one.

They are, in fact, making mistakes no matter what base the calculations are in. You are asking us to assume that they're getting some of it correct and some of it wrong in one unlikely and terrifically precise way to prove a point for which there is no other support.

Kevin J. Maroney | [kjm at panix.com](mailto:kjm@panix.com) | Games are my entire waking life

--

Andy Robertson — 12 May 2002, 08:05 · follows Kevin J. Maroney

----- Original Message -----

From: "Robert Borski" <rborski at charter.net>

Yes. But if indeed the children are making mistakes, they are making the less likely one. $29 - 19$ in base 10 is almost impossible to get wrong--

It is 10 in any base whatever.

our solution. But a calculation in base 9 of $7 + 17$ is much more difficult,

even for adults; you need to figure out (or memorize by rote) that the number 17 only contains 16 integers

No, no,no. All you need to know is that $7+7 = 15$. You put 5 down and carry 1 making 25.

It's a fascinating idea, Robert, but there is no evidence for it.

hartshorn

(I did teach my kids base 9 - as a mental exercise for them)

Michael Straight — 14 May 2002, 14:22 · follows Andy Robertson

I think this has been pretty well refuted, but oh, how I wish it were true. I really believed it for a minute. It seemed like such a Wolfean idea, him being an engineer and all, and the idea of it being subtly woven into all the books as an easter egg is fabulous, and it seems like the sort of thing Pas would do.

Don't tell Wolfe. He'll probably kick himself for not thinking of it.

-Rostrum

Robert Borski — 14 May 2002, 21:39 · follows Michael Straight

Rostrum writing:

Andy Robertson — 14 May 2002, 21:13 · follows Robert Borski

----- Original Message -----

From: "Robert Borski" <rborski at charter.net>

Doubtless I've bolixed up the math

again and hartshorn will correct me, or someone else will suggest a much more practical reason for why Wolfe chose these specific two numbers. But

I

thought at least I'd mention it now.

Robert Borski

I haven't read the story, alas. But if they are using base 9, then they would not convert back to base 10 to tell the story for us.

Andy Robertson — 14 May 2002, 21:13 · follows Andy Robertson

How I wish it were true as well!!

hartshorn

----- Original Message -----

From: "Robert Borski" <rborski at charter.net>

Kevin J. Maroney — 15 May 2002, 04:04 · follows Andy Robertson

At 10:22 AM 5/14/02, Michael Straight wrote:

I think this has been pretty well refuted, but oh, how I wish it were true. I really believed it for a minute. It seemed like such a Wolfean idea, him being an engineer and all, and the idea of it being subtly woven into all the books as an easter egg is fabulous, and it seems like the sort of thing Pas would do.

Wolfe is enough of an engineer that he dislikes hugely impractical ideas. Pas might want to impose base 9 on the inhabitants of the Whorl, but Gene Wolfe wouldn't let him. :-)

Kevin J. Maroney | kjm at panix.com | Games are my entire waking life

--

Jerry Friedman — 15 May 2002, 20:07 · follows Kevin J. Maroney

--- Robert Borski <rborski at charter.net> wrote:

Rostrum writing:

true.

Me too. (Sniff.)

< I really believed it for a minute. It seemed like such a Wolfean idea, him being an engineer and all, and the idea of it being subtly woven into all the books as an easter egg is fabulous, and it seems like the sort of thing Pas would do.

When I first posted my base 9 supposition, I couldn't remember the other passage which I thought supported my theory. Several days later I have. It's in THE CROW anthology, Wolfe's story being "The Night Chough."

In an unnamed town on Blue (though the names are Vironese), and after a violent thunderstorm (apparently spawned by the looming conjunction with Green), the young man known as Starling, accompanied by Oreb, is searching for the killers of his girlfriend Lily. The following passage then occurs (p. 68):

"Bad man. Go where? Bad man!"

"There's one," the young man whispered, pointing. Through the twenty-second

window--or perhaps it was the forty-third--could be seen three men and a woman seated around a rough table on which stood three dark bottles and five cheap wineglasses among scattered playing cards.

Now what struck me as odd here was the either/or specificity of these numbers. How could a window be either the 22 or the 43?

...

One possibility is that Starling can't tell whether adjacent lights are nearby windows or two panes of a single window. So if 1L represents the left pane of window 1, here are the two possible numbering schemes.

1L 1R 2L 2R 3L 3R 4L 4R ... 22L 22R
1 2 3 4 5 6 7 8 ... 43 44

To convince yourself that I didn't get out of alignment in my ellipses, note that "nR" is the same as "2n".

Jerry Friedman