PLANE EARTH PLANET PACKINGS

JIM PUDER Terra, Earthplane

The Plane Earth Study and Teaching Society wishes to thank Word Ways' editor for generously granting us this opportunity to respond to his gravely misleading article in the May 2004 Word Ways entitled "Planet Packing in Two Dimensions." But before addressing that issue, we would like to acquaint the reader with our Society's basic tenets.

Briefly, Plane Earth believes that the universe is composed of a vast, mostly flat plane of infinite extent—the Earthplane—and the sky above it, and that what we think of as "the earth" is merely a locality on that plane. We are prevented from ever traveling very far from our place of origin on the Earthplane by the fact that over long distances space is highly curved, so that no matter how hard we might try to move in a straight line across the Earthplane, our course will always be a curved one; thus, any sufficiently long journey in a "straight" line must inevitably bring us back again to our starting point. (T. S. Eliot recognized this truth intuitively.) Unfortunately, the fact that this phenomenon could also be accounted for by visualizing the earth as being spherical has led to no end of erroneous postulation.

(But what, the reader may well ask, of the well-documented fact that the earth's horizon appears to become more and more curved the farther above the ground one rises, until, from a very great distance, the world does in fact look very much like a sphere? The answer, of course, is that this is merely an illusion caused by the light-bending property of curved space, with those light rays coming from farthest away—e.g., those from the increasingly distant horizon as one rises farther above the Earthplane—naturally being the ones that are most distorted.)

There is much more to our well-elaborated cosmology than can be discussed here, including the fascinating fact that the latest maps of the cosmic microwave background have now convinced even most non-Plane cosmologists that the universe is, indeed, fundamentally flat. Suffice it to conclude that Planists recognize that the sun, moon, planets and stars move above the Earthplane in the various cycles and epicycles so well elucidated by the great Alexandrian astronomer Ptolemy, traveling in planes parallel to the Earthplane. And therein lies our objection to Editor Eckler's May article. By depicting, in his various planet packings, the "EARTH" as floating indiscriminately amongst the planets, Eckler not only implicitly denies the very existence of the Earthplane, he also, intentionally or not, promotes the tired heliocentrist doctrine that the earth is really just one more in a motley family of planets. To such nonsense, Plane Earth simply must respond.

With all due respect to the editor, we submit that any plausible planet packing must at a minimum reflect the fundamental dichotomy between the heavens and the earth, and that the logical way to do this is to always position the EARTH (or TERRA) horizontally at the bottom of any such diagram, i.e., symbolically flat on the ground where it belongs. Accordingly, we propose the following cosmologically correct alternatives to his recent two-dimensional planet packings.

To begin with loose packs, the editor presented a 10x10 crossword-type packing which he surmised was the smallest square into which the "planets" could be so packed. While that may be the case, modest revisions of his scheme yield smaller (7x12) rectangular packings (Figures 1a - 1c) in which EARTH (or TERRA) is properly at bottom, and the SUN (or SOL) is also present:

	M E	R C U	RY	MERCU A R	R Y M	ERCURY R
	R	A		R A	R	Α
	S	VEN	US	SUNN	S S	OL N S
		U	A	U	Α	U A
Figures	S U	N S	T	VENUS	T	ENUS T
1a - 1c		E	U	E	U	E U
	JU	PIT	ER	JUPIT	E R J	UPITER
		T	N	T	N	T N
	PL	UTO		PLUTO	P	LUTO
		N		N		N
		EAR	TH	EAR	T H	TERRA

- The Latin names for the earth, sun and planets are the names officially recognized for those bodies by the international astronomical community; thus, the all-Latin Fig. 1c packing should be valid in any language that uses the Roman alphabet.
- In these new packings, the planetary network bears a distinct resemblance to a tree, one
 appropriately supported at its base by Mother EARTH (or TERRA firma). Moreover, if
 PLUTO is pruned from the planetary tree (and reclassified as a Kuiper Belt object, as
 some astronomers now propose), the symbolic treelike (or perhaps SUNflowerlike) aspect of the planetary network (and earth's role as its base) becomes even more apparent.
- Apparently, these minimal packings permit EARTH or TERRA to be positioned only on their bottom rows. Mere coincidence? Perhaps, but skeptical readers are invited to try to find as small or smaller a packing that does not have EARTH or TERRA on one edge.

In a tighter packing, the editor showed the 52 letters of the "planets" names in a 4x13 rectangle with no empty space. While this pack might be rendered acceptable by tipping it on its side to put EARTH on the bottom row, we prefer a more esthetic 55-letter 5x11 rectangle (Fig. 2a) that includes the SUN (or SOL) and places the EARTH (or TERRA) alone on the bottom row. (Note that problematic PLUTO could easily be trimmed from *our* rectangle, should one wish to do so.)

In a closer packing with overlaps allowed, the editor offered a 7x7 square in which the earth was not only airborne but vertical. At the small cost of inverting Mars, the 7x7 packing shown as Fig. 2b below corrects both of these faults. (Note that a reversed SUN shines down twice.)

In his most compact two-dimensional packing, the editor presented 22 letters arranged in a 6x5 array such that the names of all the "planets" could be spelled out with king's move jumps. Alas, EARTH is not even in a *straight line* in that packing—sacrilege! Though we cannot yet match Eckler's 22-letter score in a grid with EARTH at bottom, we *can* do so in one with TERRA ("TERA") there, either with SOL in a 5x6 array (Fig. 2c), or without it in a 5x5 square (Fig. 2d):

P	L	U	T	0	S	A	Т	U	R	N	m				J			٧	I	P	L
M	Α	R	S	n	N	E	P	Т	U	N	E		V	I	P	U	Y				
m	j	S	u	e	J	U	P	I	T	E	R	Y	N	E	T	L	A	R	U	0	J
е	u	a	r	p	U	R	A	N	U	S	C	A	R	U	0		M	C	S	T	
	p				P	L	U	T	0	r	u	M	C	S	Т		T	Ε	R	Α	
C	i	u	n	u	٧	E	N	U	S	a	r	T	E	R	A						
u	t	r	u	n	E	Α	R	T	H	m	У										
r	e	n	S	e																	
У	r	S	U	N																	
٧	E	N	U	S							Figures	2:	a -	3	2d						
Ε	Α	R	Т	Н																	

In sum, Plane Earth's positionally proper planet packings are entertaining, educational, elegant and eminently estimable. So why be left wondering which way is up? Order your set today!