What song the Sirens sang, or what name Achilles assumed when he hid himself among women, though puzzling questions, are not beyond all conjecture.

--Sir Thomas Browne, Urn Burial; or Hydrotophia (1658)

In the November 1979 Word Ways there was an interesting and challenging article by Dmitri A. Borgmann called "Palindrome: The Rotas Square."

I was glad to see the Master Logologist return to the problem of the Sator square, about which he said in his Language on Vacation (p. 208), "The treatment we have given the Sator square is far from adequate, partly for lack of space, partly because we don't happen to care for it. To us, it is a symbol of imperfection, of failure to achieve a desired goal, and we want to dissociate ourselves from it." Now Mr. Borgmann has given us further background on the Sator square, adducing new literature and drawing new conclusions. He seems to have overcome his aversion to this famed square, and his bringing the problem to the fore again leads me to unveil a solution, or at least a hypothesis, of mine which will have to be seriously dealt with in any future attempt to unravel the enigma which this palindrome has so long presented.

Two thoughts in Mr. Borgmann's last article are most pregnant: the Sator square is a Christian symbol, "a secret sign by which believers could recognize each other without revealing their identity as Christians", and it has Greek affinities.

I have never seen a convincing translation or interpretation of SATOR AREPO TENET OPERA ROTAS. Some suggested ones are:

1) The sower is at the plough; the work holds (i.e., occupies) the wheels. But is arepo actually the ablative of arepum or arepus, which is said to mean a "wheel plough"? The word does indeed look like something from some Italian dialect or Celtic tongue, but is it actually attested? In any case, the word opera ("work") is plural, while tenet ("holds") is singular. What is this connection between sower and plough, anyway? Is it not true that the sowing comes after the ploughing and the sower cannot guide the plough and broadcast the seed at the same time?

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(2) Arepo, the sower, holds the work and the wheels. Is this a hendiadys for "holds the working plough"?
(3) The sower at the plough holds the wheels at/as work. For this should we not have the form opere, if not operibus?

And so it goes. Any translation is highly unconvincing with its talk about a sower who is ploughing or is named Arepo or who is monkeying around with a wheeled plough.

Now let us recall the two pregnant thoughts from Mr. Borgmann's research: Christianity and Graecism.

If a Christian were composing a secret palindrome who or what might be foremost in his thoughts? I suggest that it would be the Savior — "unto the Jews a stumbling-block and unto the Greeks foolishness" (1 Corinthians 1: 23) in St. Paul's words.

Now, the Greek word for Savior is SOTER — remarkably like SATOR. If an early Greek Christian were about to construct a palindrome, might he not begin it with that word? And if so, would he not have to end it with the letters RETOS? Yes, that is a distinct possibility, especially when we learn that RETOS means not only "expressly" (1 Timothy 4: 1), but also "covenantedly" or "in a covenanted manner" (cf. Liddell and Scott). The New Testament is the New Covenant. It is auspicious that our conjectured Christian Greek reconstruction begins with these two key words.

The Sator square is unusual in that it represents a palindrome which begins with a consonant, continues with a vowel, and then goes on alternately consonant and vowel for twenty-five letters. Further, the square has the following structure, with a Greek cross composed of the intersecting TENETs and of the bare E's in the vowel matrix, while lines joining the A's and O's of that matrix give a St. Andrew's cross:

SATOR S T R A O
AREPO R P A E O
TENET T N T E E
OPERA P R O E A
ROTAS R T S O A

If we assume that our SOTER and RETOS were the starting points for an original Greek palindromic square, we can reconstruct the square at the left below. The Latin O's have r'aced the Latin A's, and the Latin E's have replaced the Latin O's; saving the A's nothing else to do but move to the original sites of the E's, in the central square below. Since the consonants around the edges in both the Latin and our conjectured Christian Greek reconstruction are the same, let us keep the consonant matrix right on the original Sato:

Borgmann spoke.

But what about each word composing the S and the O, and Scott. Especially no note of a harm, i.e., the child shall live, shall a much stronger.

The apostrophe

Here is the Latin:

ANATA - 'I shall live'
EPARO - 'I shall be'
ORA - 'I shall ascend'
PE - 'I shall be'
RETOS - 'I shall be'
SOTER - 'I shall save'
TA - 'I shall ascend'

I suggest that the square accords with the Gospel of Luke.

The center siring TANATs a harm, i.e., the child shall live, also shall dwell, as a kid; and the

child shall live, shall a much stronger.

Now to consider:

(1) The Evangelist:

SOTER - I shall save
secting
had no
For this with its talk of what might be a Hebrew palindrome, especially Timothy 4:1, Liddell and Scott's lexicon suggests that "Savior−shines" (I Timothy 4:1).

But what does the square mean in Greek? It is not simply 'a square below,' but "things that (1) cause no harm and (2) do not suffer harm," exactly like the active and passive meanings of harmless.

Here is the lexicon of this sentence (in Latin alphabetical order):

SOTER - 'Savior'
ANATOMA - 'things that (1) cause no harm and (2) do not suffer harm'
EPARO - 'Future' (I am the) Savior; (my) time accords with things harmless; I will lift up as covenanted.

The central cross of the whole square is centered on the intersecting TANATs − TA ANATA − things that suffer no harm and cause no harm, i.e., the millennial estate predicted in Isaiah 11:6, "The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together; and a little child shall lead them."

In other words − universal peace and harmony, a much stronger idea than the colorless TENET tenet holds.

Now to consider some objections that are sure to be raised:

(1) The E in EPA RO is short (an epsilon), while its intersecting E in SOTER is long (an eta); the E in PE is an epsilon, while the intersecting E in RETOS is an eta. My answer is that Greek spelling had not been thoroughly standardized at the early time that this square was composed of the 26 letters of the Greek alphabet, and no two of them are alike; or, there was an underlying pattern of rough breathing (in Greek, represented by a letter of the alphabet before certain vowels). In each case, the ancient Greek text would have been the same in both squares, resulting in the square at the top having no more meaning than the square at the bottom. The central idea is not to hide Christian origin and serve as the 'secret sign' of which Mr. Borgmann speaks.
palindrome was composed. The palindrome may also be the
work of a dialect speaker, perhaps from Lesbos, who was not
completely literate (PE occurs in the works of Sappho of Lesbos).

(2) ORA and RETOS have rough breathings. As noted above, the
rough breathing is not represented by a separate letter of the
alphabet and, like the accents, was often omitted in antiquity.

From this brief exposition I think it is clear that the Sator square is
but an altered version of the Soter square. No coherent sense can be
made of the Sator square, while the Soter square, as will be shown be­
low, has an even higher order of symmetry and symbolism than already
noted.

Let us approach the composition of the Soter square from another as­
pect than that of showing it to be an alteration of the Sator square. At
the same time let us take into account the remarkable PATERNOSTER
cross with its terminal $A$'s and O' $s$ (alphas and omegas) into which the
Sator square may be rearranged. It is almost ineluctable that, starting
with the outline square displayed two pages earlier, the square can be
completed as we have conjectured.

First, I believe that no other vowel than $A$
could be used to complete the complement of
vowels in lines 2, 3, and 4 to give the beginnings
of the Greek cross at the right. In the Greek
square, the letters $T$ and $A$ play the same role
that the letters $A$ and $O$ do in the PATERNOSTER
cross. These letters stand for alpha and omega, the first and last let­
ters of the Greek alphabet, used symbolically in the last book of the Bible
to represent the beginning and the end. This symbolical use of letters is
a very Semitic (Hebrew) characteristic: remember the acrostic poems
in the Bible (Psalm 119 is the prime example), the jot and tittle (the
Hebrew letter yod and the excrescences separating letters of the Hebrew
alphabet) used as symbols of very little things, and the aleph and tau
(the first and last letters of the Hebrew alphabet, used to start and end
the book of Nahum). In other words, the $A$ and $T$ of the Soter square
were deliberately placed in the Greek cross to denote the beginning and
the end, just as the $A$ and $O$ in the PATERNOSTER one.

With this much of the Soter square dictated, as it were, the remain­
ing five letters were also equally dictated, as the only ones that could
complete the square so as to give a message in consonance with SOTER.

The truth of the foregoing statement becomes even more apparent if
we discard the idea that the composer of the Soter square was primarily
an uneducated man from some Greek dialect area that used the preposi­
tion PE and instead assume that he, as the aleph-tau argument makes
undeniable, was a man of some considerable education, as wordsters
often are -- and as they particularly were some 2000 years ago.

The composer may have known Hebrew; he may with even more like­
lihood have also known Latin. If he did, it could hardly have escaped
his attention that the word SOTER contains the letters $O,S,T,E,R$, which
are the final ones of the Latin noster 'our' and form an ending which is hardly found in any other common word in that language. Among Latin Christians no other word occurs with noster so often as pater. This connection may well have suggested the N, P, P, R, R to complete the Soter square. We might even go farther and say that the Soter square was written in Greek in transliteration in Latin letters. This would get rid of any possible captiousness with regard to the epsilons and etas. But the Greek square written in Latin letters was the original. This was transmogrified into a Latin square which makes no real sense so that it could serve as a secret symbol.

That a PATERNOSTER 0 can be found by rearranging the Latin is supporting proof of the elegance of the whole Soter square. Here we are face to face with an exemplification of Goethe's remark that "Everything perfect in its kind transcends its kind." The start was made with SOTER and everything flowed from that. The sparks struck by this stroke of linguistic and logological genius are still with us today.

Much more may undoubtedly be found in the Soter and Sator squares to defend my thesis, but I believe this brief treatment has proven that my conjectures must be treated in any further discussion of the square.

BUY, SELL, TRADE

Philip M. Cohen, 726 Golf Course Road, Aliquippa, PA 15001 seeks a set of the eight-volume Normal and Reverse English Word List, prepared by A. F. Brown under an Air Force Contract. He is also looking for a copy of the Times Index-Gazetteer.

The editor has available for sale used copies of Dmitri Borgmann's two books, Language on Vacation (Scribner's, 1965) and Beyond Language (Scribner's, 1967) for $4.50 apiece.