Constructing the Dodecahedral Trail
by
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On November 19, 2010, I attended a talk by Lee Ann Brown,
opening a workshop celebrating the 50th anniversary
of Oulipo, held at the University of North Carolina
at Asheville. In this talk she mentioned that she
is fascinated by dodecahedra, as well as by constrained
poetry.

Shortly thereafter, I composed this piece describing how
one might walk around the vertices of a dodecahedron,
selecting words written on the edges of the dodecahedron
to use in a constrained poem.

Walking The Dodecahedral Trail

Words on an edge,
Walking the dodecahedral trail.
Encounter vertices, nodes.
Make a choice,
To turn left or right,
Writing down discoveries,
Surprise conjunctions,
And finding once only
Read poems.

There are thirty distinct words in this piece, corresponding
to the thirty edges of a dodecahedron.
I then constructed a PHiZZ units dodecahedron (see Tom Hull's lovely
book Project Origami), and wrote one word on each unit. I used three
units of each of yellow, green and orange, and randomly constructed
the dodecahedron from the units, subject to the constraint that any
two of the colours form a hamilton cycle through all the vertices
(this is the solution to the original problem posed by Hamilton
in 1859).

Next, I randomly selected an edge, the word "right", and a direction
along which to traverse it: and then I wrote down a sequence of
choices to make, RLRL LRLR RLRL. I followed this from the edge "right",
turning right or left as the sequence indicated, obtaining the following
sequence of words:

Right
Surprise
Turn
Read
Discoveries
On
Poems
Walking
To
Dodecahedral
Choice
Once
Left

I decided to use these as the first words of each line of a poem, and composed the following.

Right Surprised

Right surprised we are, we are,
Surprised as hell, surprised as well.
Turn the eye to see afar,
Read the words the ball will tell.
Discoveries astound us still:
on finding ideas in the air,
Poems emerge from hidden will.
Walking, turning, here to there,
To wander, maybe to explore
Dodecahedral skeletal ball.
Choice is made, and made once more:
Once made, it cannot change at all
Left or right until the end.

As a final observation, note the rhyming scheme
is such that the final phoneme of each line follows
the pattern
RLRL LRLR RLRL
so that the poem itself encodes the directions
in which I turned to obtain the words.