

Ode to Numbers

by Sarah Glaz

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REVIEWED BY EMILY GROSHOLZ

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The sections in this book of poetry evoke the origin (the metaphysical one and $(0, 0)$ in the Cartesian plane), Pythagoras, serendipity (which Joe Mazur likes to call fluke), a workshop on commutative rings, and Euclid's fifth postulate. You might suspect that the poet is also a mathematician, and indeed, she has spent the last thirty years working in the Mathematics Department at the University of Connecticut, teaching and doing research in commutative ring theory. Working on Noetherian rings (among other things), she carries on, with Emmy Noether, the tradition of women mathematicians and also mathematicians in exile, for she was born in Romania, left with her family for Israel as child, and completed her education and began her career in the United States. She writes poems in Romanian, Hebrew, and English.

One of the many compelling aspects of this book is Glaz's ability to dramatize mathematics, to insert it into a human story that nonetheless reveals the odd ways in which mathematics, godlike, transcends human affairs, a mysterious confluence of contingency and necessity, pondered by both Plato and the mid-twentieth-century philosopher Jean Cavaillès (a friend of Noether's). And by Glaz! In her poem "Commutative Coherent Rings," she addresses Mathematics with thanks for the gift of discovery

that You bestowed on me the
knowledge of Your secrets and let me
play for You the music of the spheres.

And in a poem about writing a poem, entitled, significantly, "Like a Mathematical Proof," the process of creation turns into, first, a comet from a distant galaxy of thought, and then a firebird, and then a profound sense of peace. Both a poem and a theorem are visitations.

Glaz also has the ability to carry out a kind of conceptual punning, often superimposed upon the many double entendres to which writing about mathematics can tempt a poet. She sees "a streak of mathematics in almost everything," so the book becomes a work of alchemy. Light rays in the sky, lines of gold, become x and y axes (which reminds us that the sun is an origin). The square root of two becomes a symbol of the irrationality that drove her family

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from Romania to Israel. Small stones stand for the calculus (in Latin) and the integral sign becomes a snake (in Leibnizian). An especially wonderful poem, “The Enigmatic Number e ,” covers three pages with historical narrative and alchemy: e becomes a pirate, Euler’s namesake, a peacock, and finally a star. Logic proves its own limitations; the precious fruit of labor (as at the end of Yeats’s “Among School Children”) is both a baby and a poem, and, here, a theorem. The fabric of the universe is algebraic: lemmas are blue, corollaries orange, theorems purple. The poet’s backpack is full of theorems and commutative rings grown

in her garden instead of weeds. Train tracks actually converge at infinity.

In sum, you should read this book: don’t miss the golden rings and transformations!

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