

# **Mathematics and Poetry You Have to be Kidding!**

**by**

**Marcia Birken**

**Anne C. Coon**

# Geometry by Rita Dove

I prove a theorem and the house expands:  
the windows jerk free to hover near the ceiling,  
the ceiling floats away with a sigh.

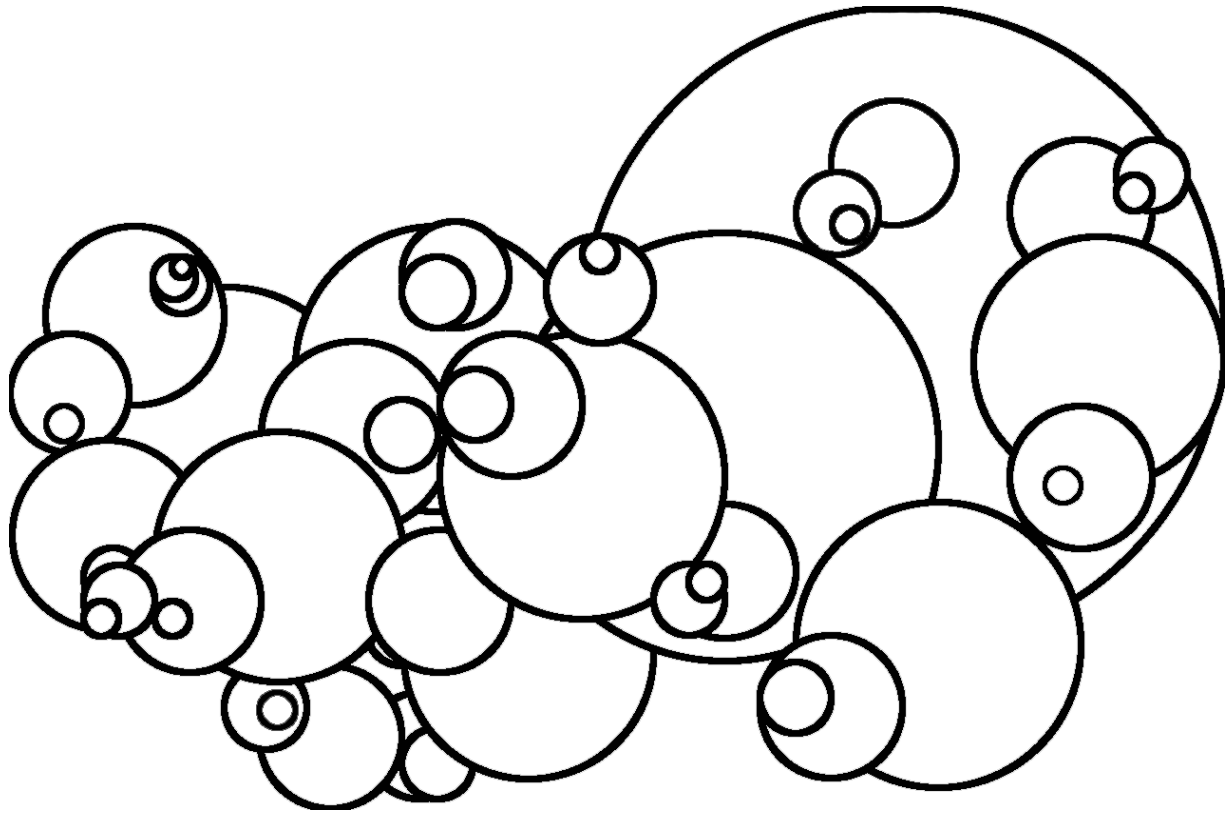
As the walls clear themselves of everything  
but transparency, the scent of carnations  
leaves with them. I am out in the open

And above the windows have hinged into butterflies,  
sunlight glinting where they've intersected.  
They are going to some point true and unproven.

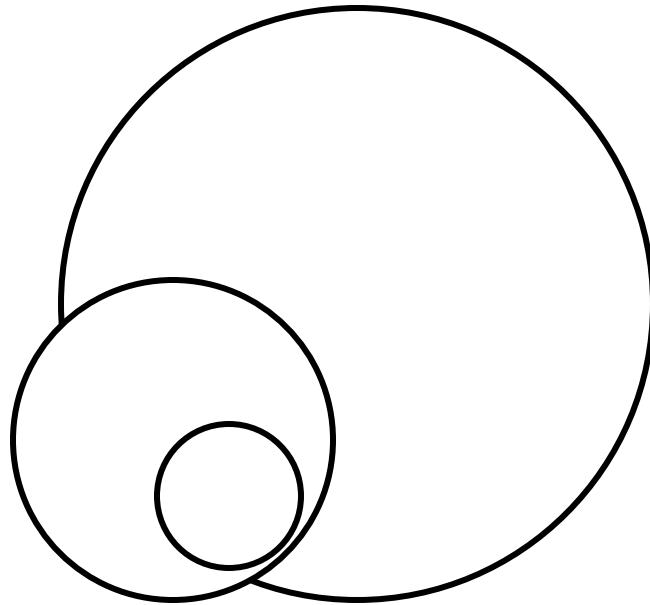
# Marcia's Word List

- Imagination
- Metaphor
- Emotion
- Beauty

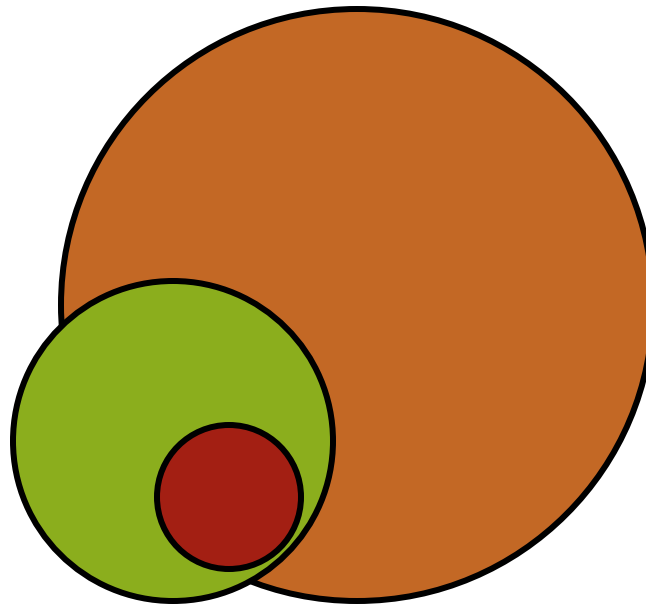
# Fractal-like Image



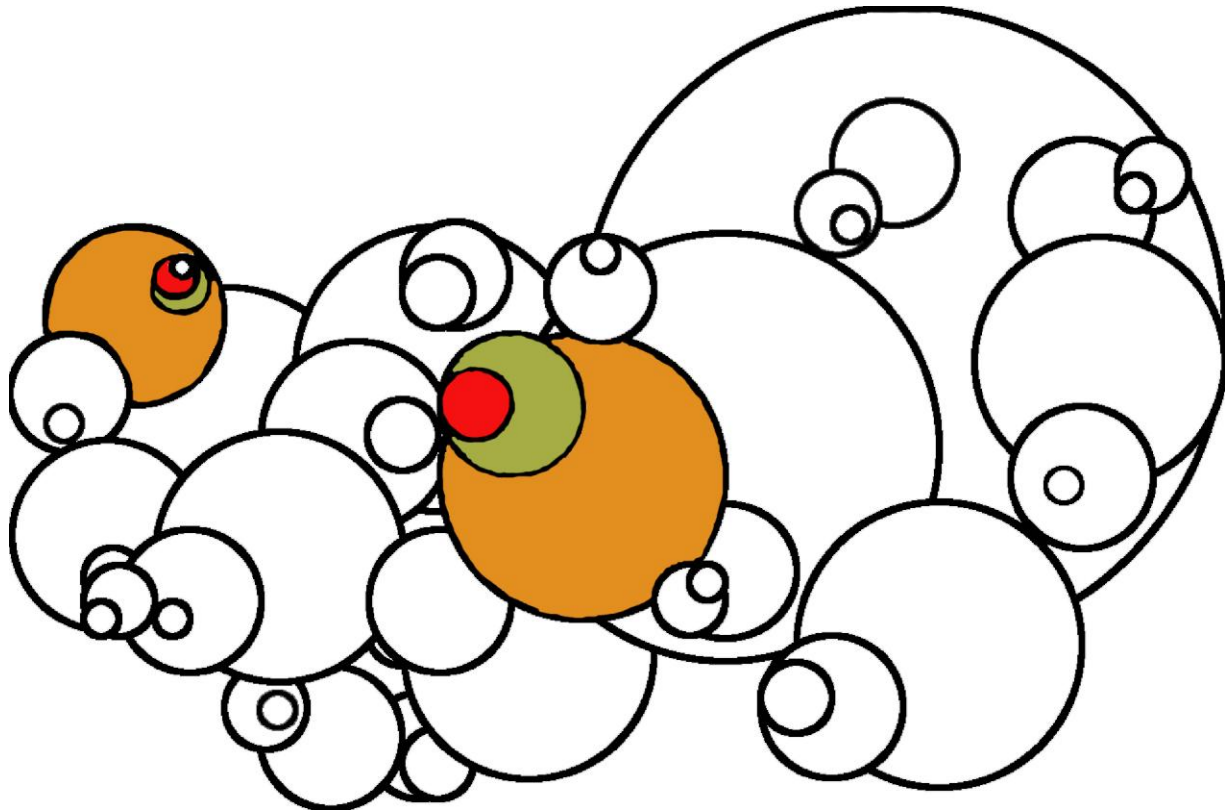
“Olive and Orange”



“Olive and Orange”



# Fractal-like Image



# Anne's Word List

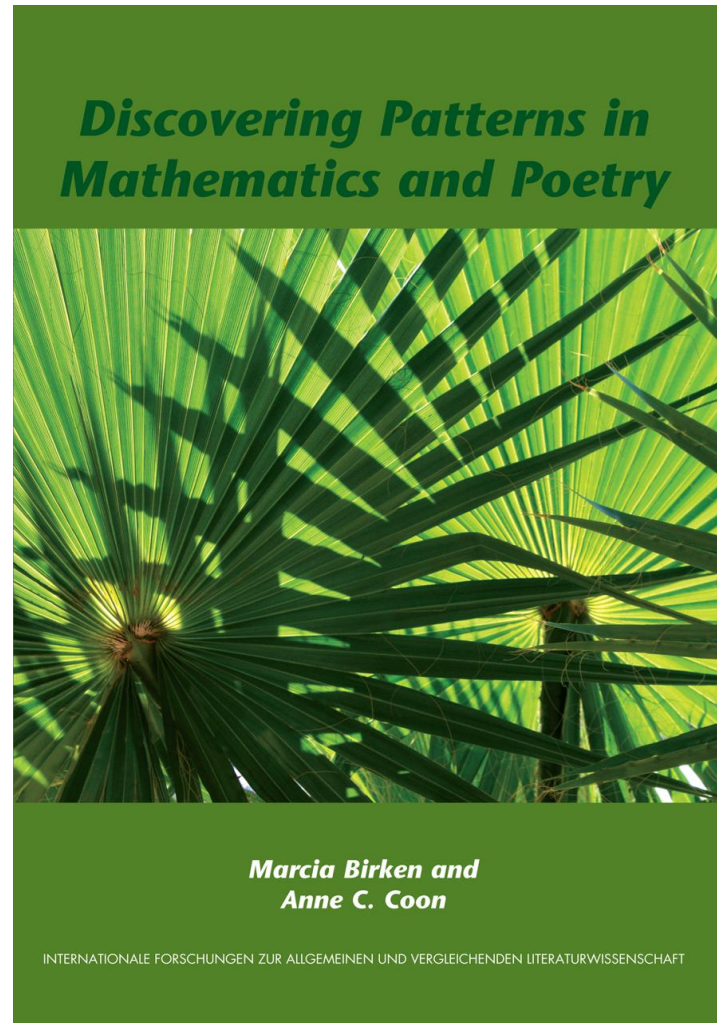
- Imagination
- Analogy
- Emotion
- Beauty

# Anne's Word List

- Imagination
- Analogy
- Emotion
- Beauty
- Structure
- Repetition
- Visualization
- Pattern

# Discovering Patterns in Mathematics and Poetry

published in 2008 by Editions Rodopi, New York and Amsterdam



# Table of Contents

- Chapter 1- Counting Patterns
  - Number Systems and Sequences
  - Infinity
  - Patterns in Rhythm, Rhyme, and Ideas
  - Traditional Forms: Limerick and Ballad
- Chapter 2 - Counting Patterns Take Form
  - Pascal's Triangle/Fibonacci Sequence/Golden Ratio
  - Sestina/Sonnet/Villanelle

# Table of Contents (cont.)

- Chapter 3 - Patterns of Shape
  - Math Shapes/Plane Figures/Spirals
  - Shaped Poetry/Labyrinths/Puzzles
  - Modern Pattern Poetry
  - Symmetry in Math/Tessellations/ M. C. Escher
  - Symmetry in Poetry Structure/Form
  - Symmetry as Metaphor

# Table of Contents (cont.)

- Chapter 4 - Fractal Patterns
  - Fractal Definitions/Fractals in Nature
  - History of Fractals/Julia and Mandelbrot Sets
  - Fractals and Poetry/Mandelbrot Set and Language
  - Poetic Dimensions of Self-similarity
- Chapter 5 - Patterns for the Mind
  - Math: Proof, Paradox, and Infinity
  - Poetry: Proof, Paradox and Infinity

# A Miracle for Breakfast (first two stanzas)

by Elizabeth Bishop

At six o'clock we were waiting for **coffee**,  
waiting for coffee and the charitable **crumb**  
that was going to be served from a certain **balcony**,  
-- like kings of old, or like a **miracle**.

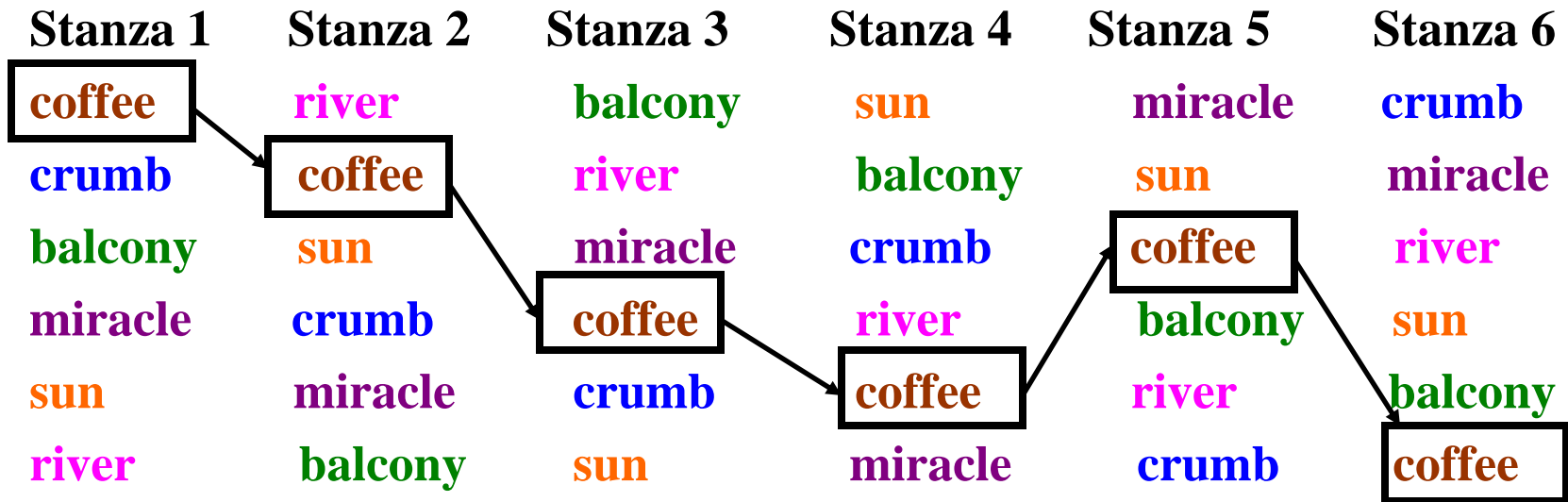
It was still dark. One foot of the **sun**  
steadied itself on a long ripple in the **river**.

The first ferry of the day had just crossed the **river**.  
It was so cold we hoped that the **coffee**  
would be very hot, seeing that the **sun**  
was not going to warm us; and that the **crumb**  
would be a loaf each, buttered, by a **miracle**.  
At seven a man stepped out on the **balcony**. . . .

# Permutation: (1, 2, 4, 5, 3, 6)

Stanza 1	Stanza 2	Stanza 3	Stanza 4	Stanza 5	Stanza 6
coffee	river	balcony	sun	miracle	crumb
crumb	coffee	river	balcony	sun	miracle
balcony	sun	miracle	crumb	coffee	river
miracle	crumb	coffee	river	balcony	sun
sun	miracle	crumb	coffee	river	balcony
river	balcony	sun	miracle	crumb	coffee

# Permutation: (1, 2, 4, 5, 3, 6)





# Escaping the Mandelbrot Set by Robin Chapman

*Def: Equation yielding a fractal pattern self-similar  
at every level of magnification within a range of values.*

She says  
The coffee is fine  
Though it could have been stronger  
And cream would be nice.

She says  
The weather today  
Is, yes, fine, though cold  
For summer and more rain likely  
tonight.

She says  
The summer's going well,  
Of course awfully fast and won't last  
Long enough to get done what she'd  
planned.

She says  
The marriage was ten good years  
And then ten bad, and she's learned  
A lot since, though of course it's lonely.

She says  
Buying a new cappuccino maker,  
Espresso roast, and best jam for her bread  
Is frivolous, but we only have one life.

# Final Word List

Imagination

Metaphor

Emotion

Beauty

Structure

Repetition

Visualization

Pattern

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Imagination

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**Creative Possibilities**

**Intersections**

**Cross-disciplinary Thinking**