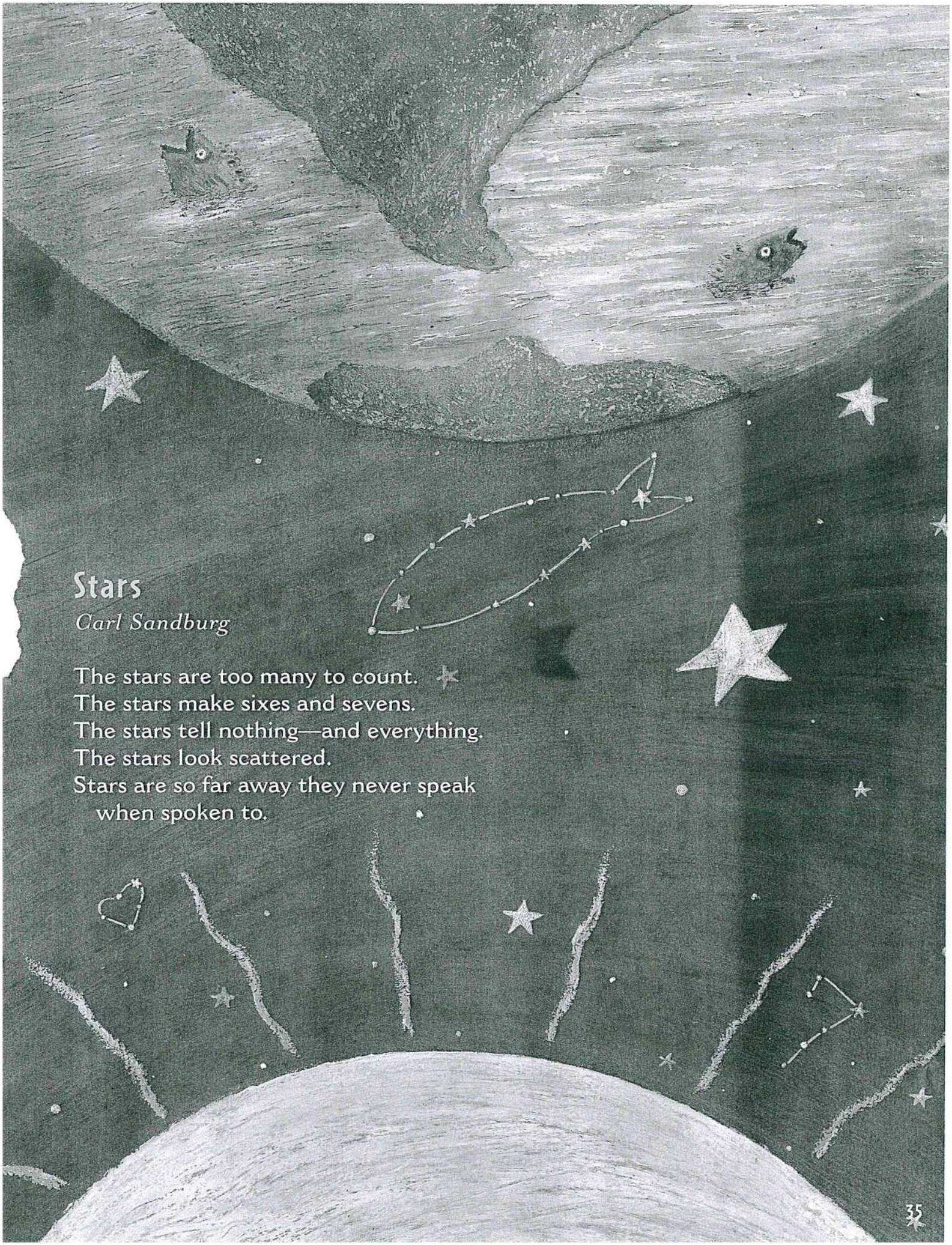
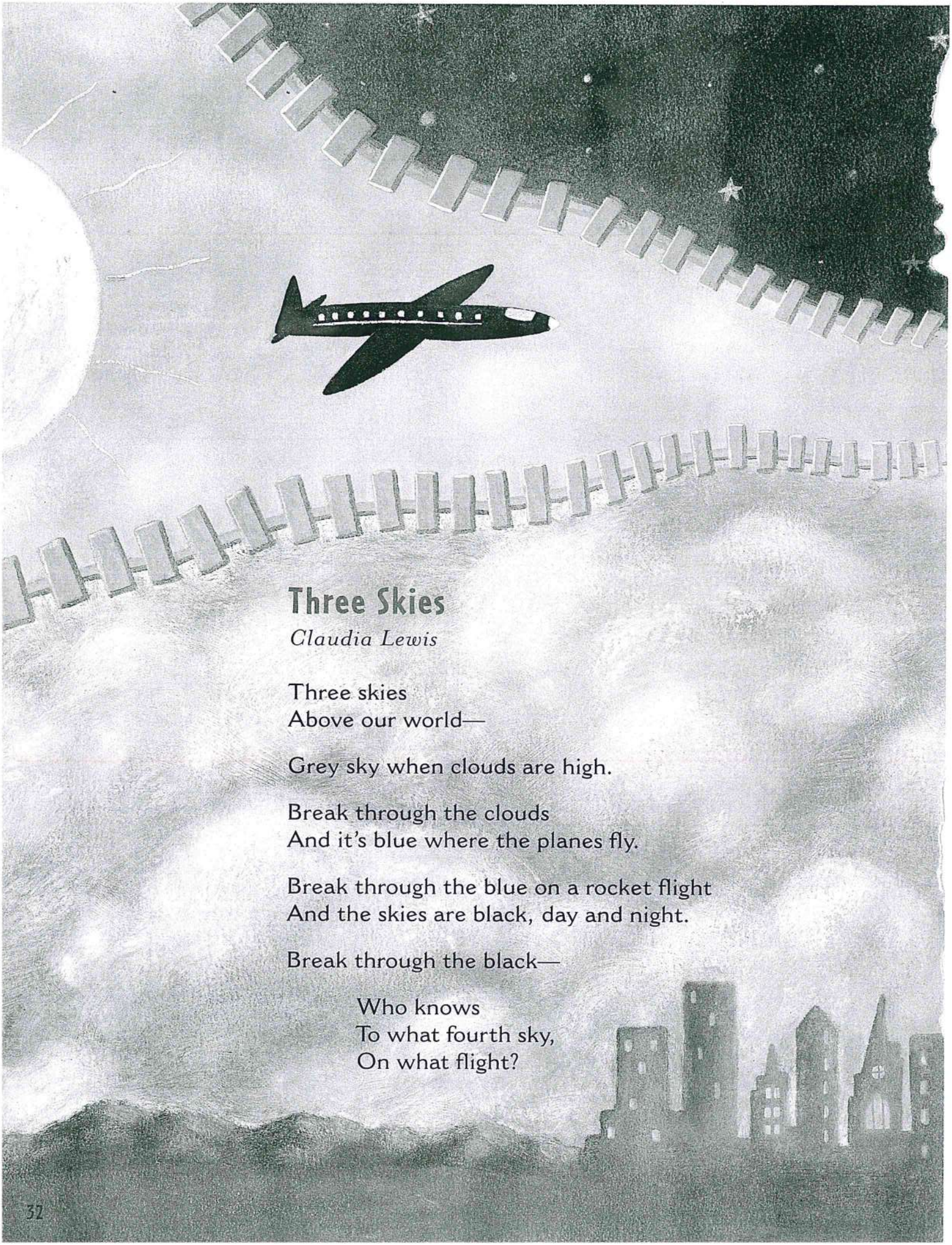


Stars

Carl Sandburg

The stars are too many to count.
The stars make sixes and sevens.
The stars tell nothing—and everything.
The stars look scattered.
Stars are so far away they never speak
when spoken to.



Three Skies

Claudia Lewis

Three skies
Above our world—

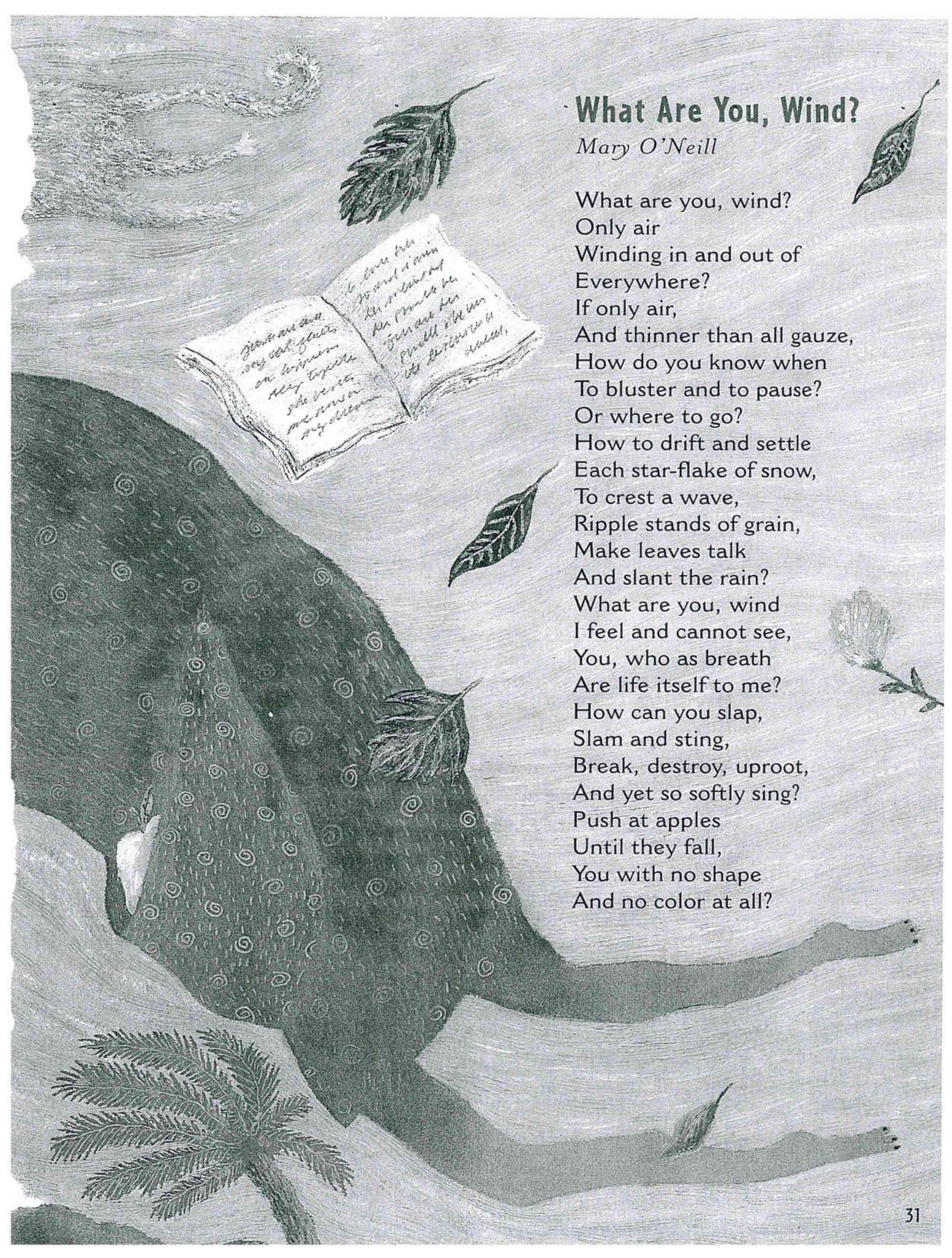
Grey sky when clouds are high.

Break through the clouds
And it's blue where the planes fly.

Break through the blue on a rocket flight
And the skies are black, day and night.

Break through the black—

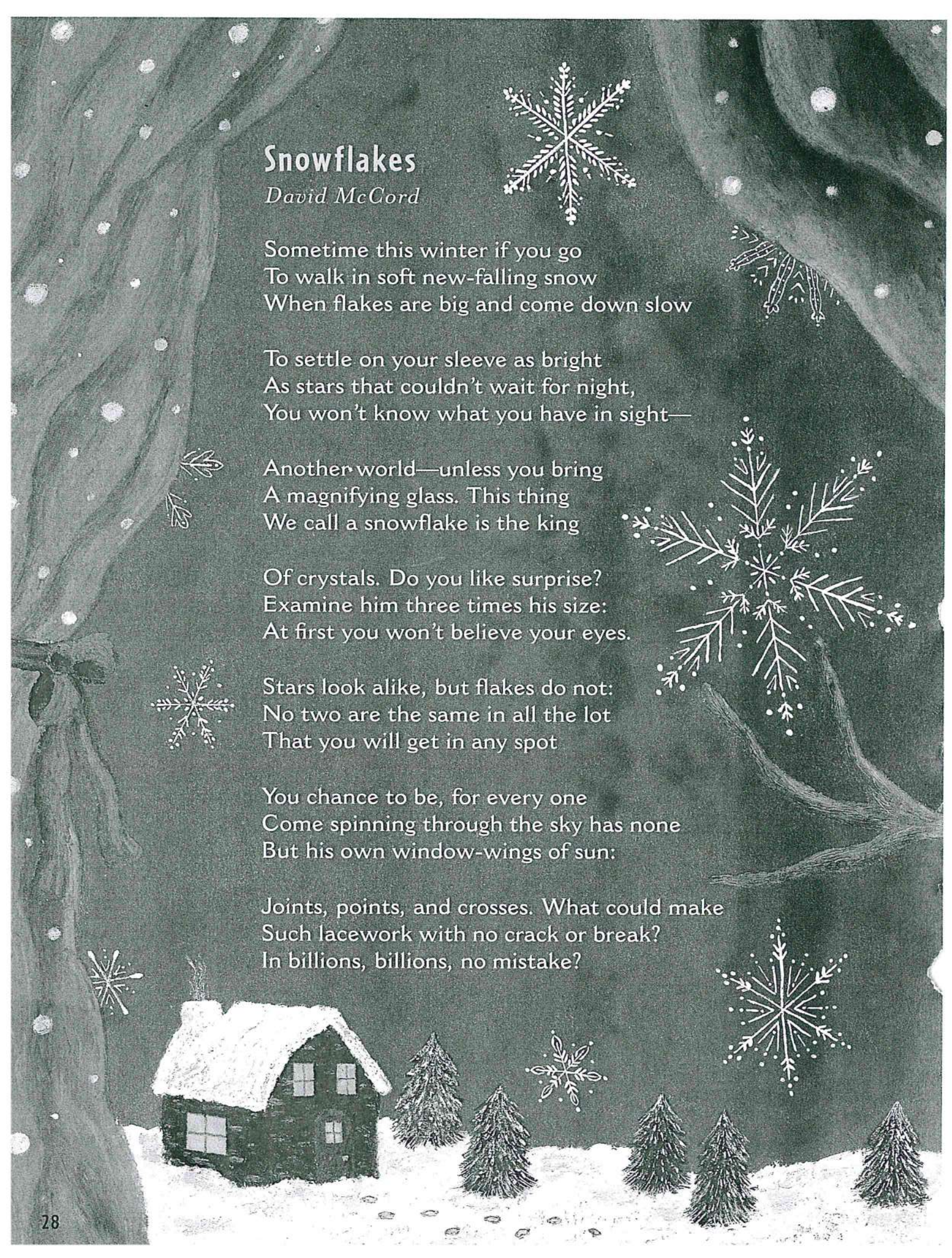
Who knows
To what fourth sky,
On what flight?



What Are You, Wind?

Mary O'Neill

What are you, wind?
Only air
Winding in and out of
Everywhere?
If only air,
And thinner than all gauze,
How do you know when
To bluster and to pause?
Or where to go?
How to drift and settle
Each star-flake of snow,
To crest a wave,
Ripple stands of grain,
Make leaves talk
And slant the rain?
What are you, wind
I feel and cannot see,
You, who as breath
Are life itself to me?
How can you slap,
Slam and sting,
Break, destroy, uproot,
And yet so softly sing?
Push at apples
Until they fall,
You with no shape
And no color at all?



Snowflakes

David McCord

Sometime this winter if you go
To walk in soft new-falling snow
When flakes are big and come down slow

To settle on your sleeve as bright
As stars that couldn't wait for night,
You won't know what you have in sight—

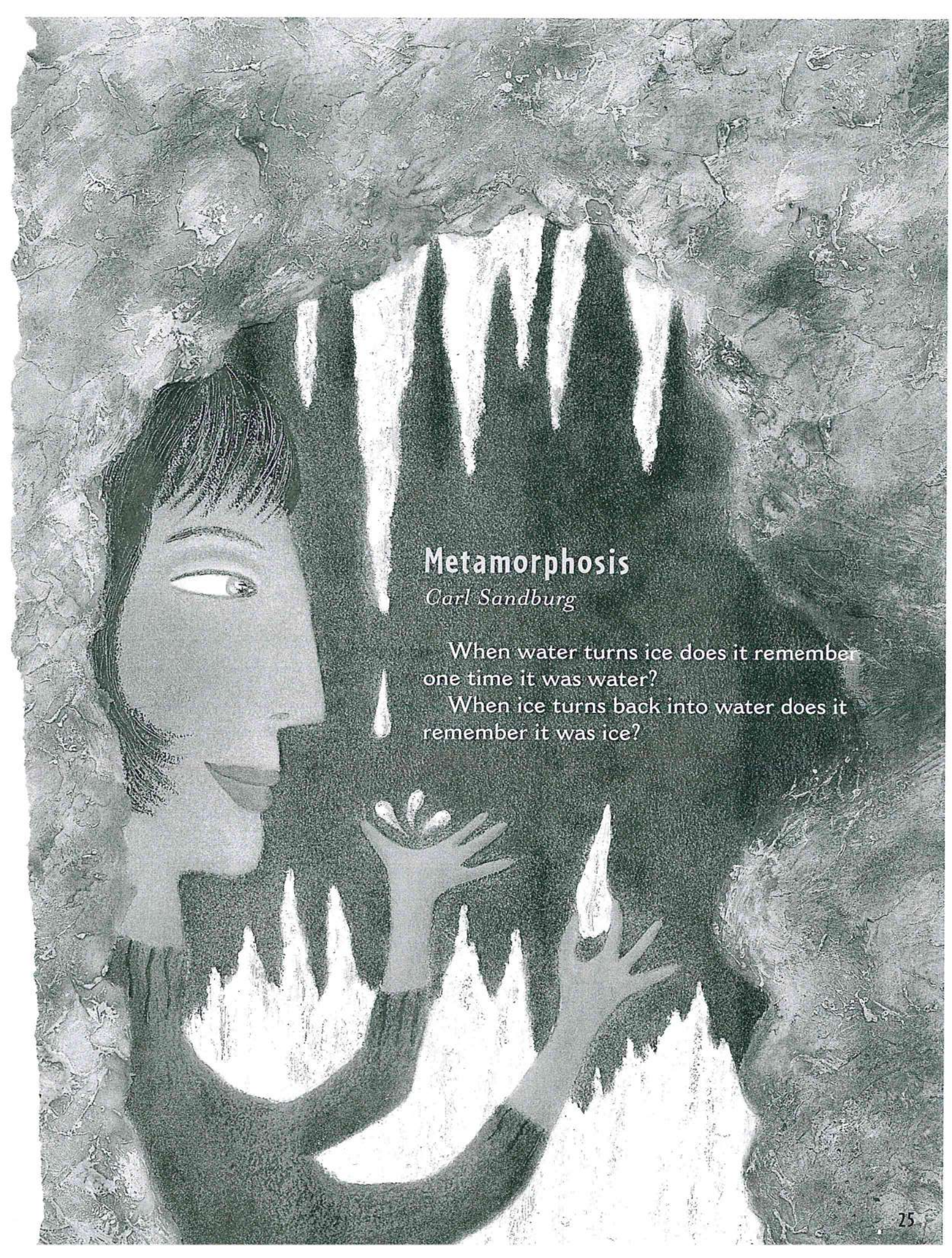
Another world—unless you bring
A magnifying glass. This thing
We call a snowflake is the king

Of crystals. Do you like surprise?
Examine him three times his size:
At first you won't believe your eyes.

Stars look alike, but flakes do not:
No two are the same in all the lot
That you will get in any spot

You chance to be, for every one
Come spinning through the sky has none
But his own window-wings of sun:

Joints, points, and crosses. What could make
Such lacework with no crack or break?
In billions, billions, no mistake?



Metamorphosis

Carl Sandburg

When water turns ice does it remember
one time it was water?
When ice turns back into water does it
remember it was ice?

How?

Lee Bennett Hopkins

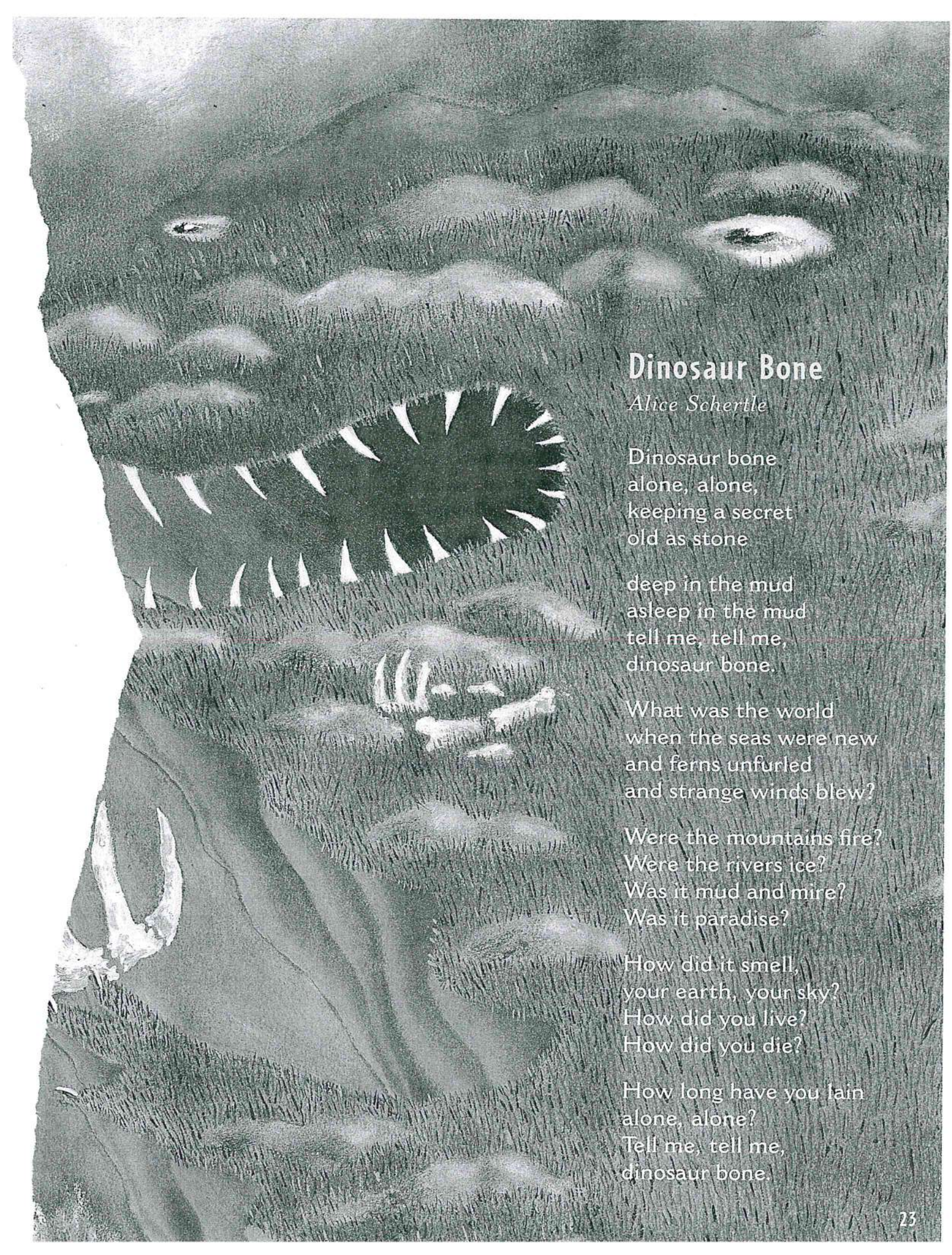
How
do
spiders,
ants,
ladybugs,
bees—

butterflies,
fireflies,
dragonflies,
fleas—

know

to
crawl,
creep,
flit,
flutter,
fly—

as
winter
comes
bitterly
chilling
the
sky?



Dinosaur Bone

Alice Schertle

Dinosaur bone
alone, alone,
keeping a secret
old as stone

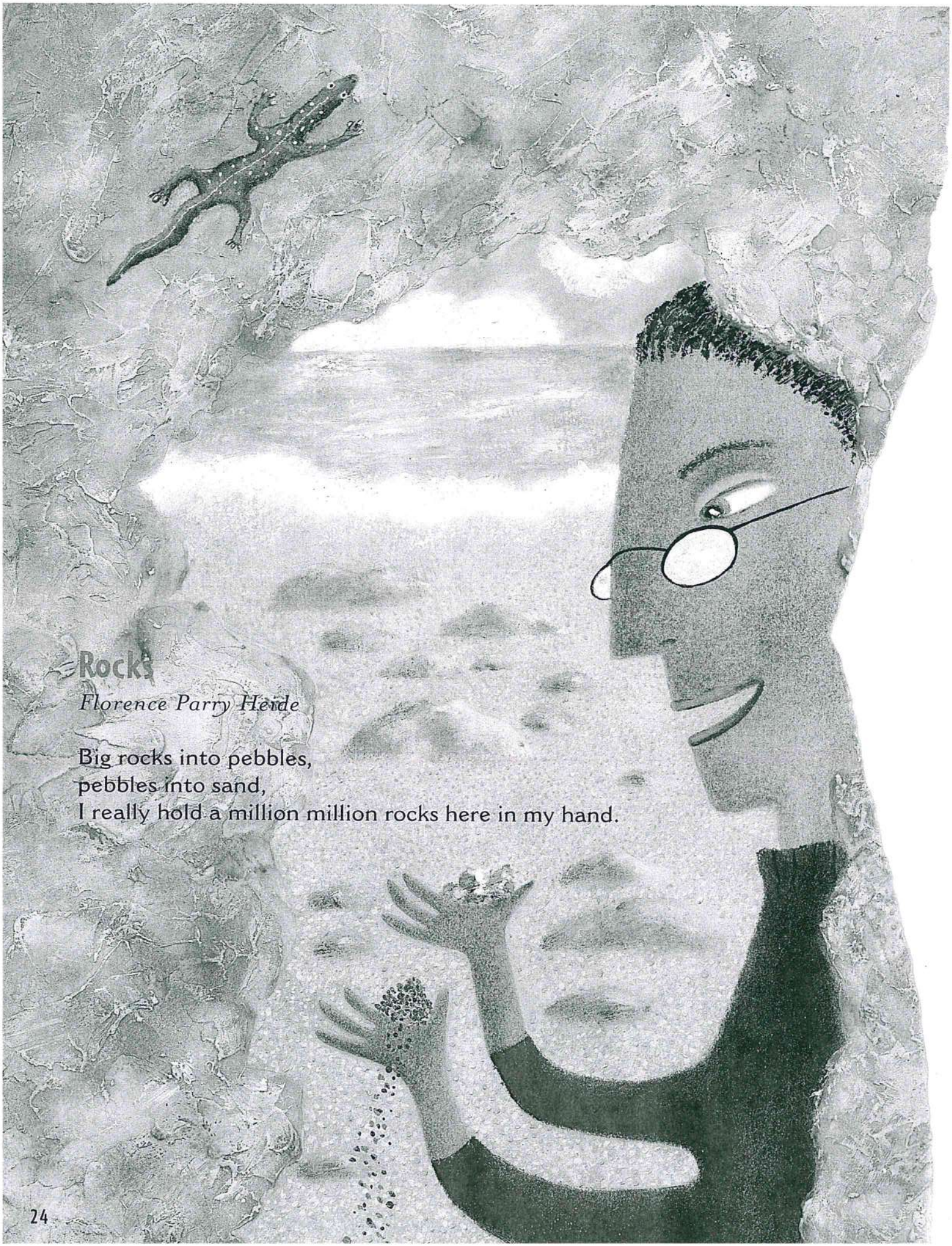
deep in the mud
asleep in the mud
tell me, tell me,
dinosaur bone.

What was the world
when the seas were new
and ferns unfurled
and strange winds blew?

Were the mountains fire?
Were the rivers ice?
Was it mud and mire?
Was it paradise?

How did it smell,
your earth, your sky?
How did you live?
How did you die?

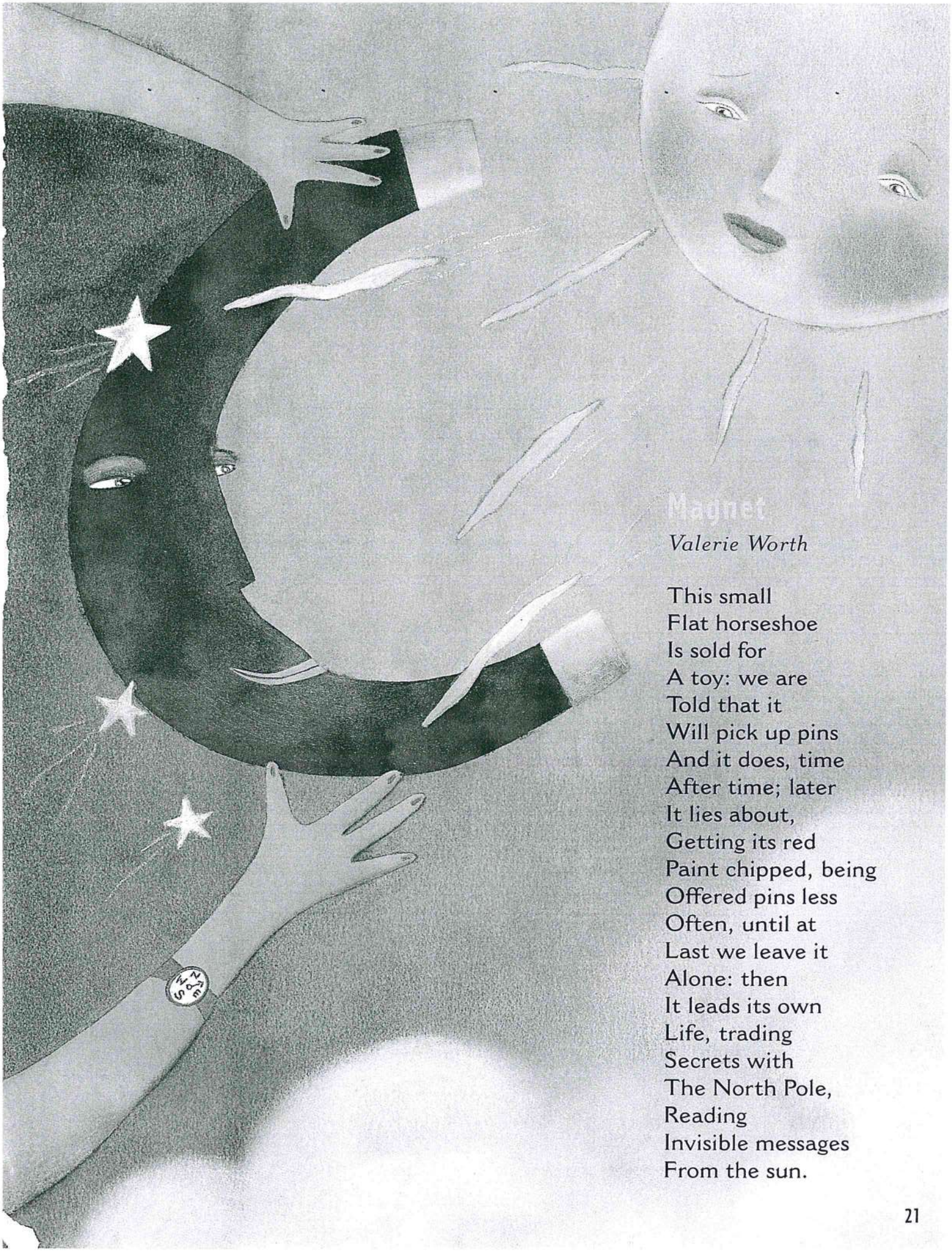
How long have you lain
alone, alone?
Tell me, tell me,
dinosaur bone.



Rocks

Florence Parry Heide

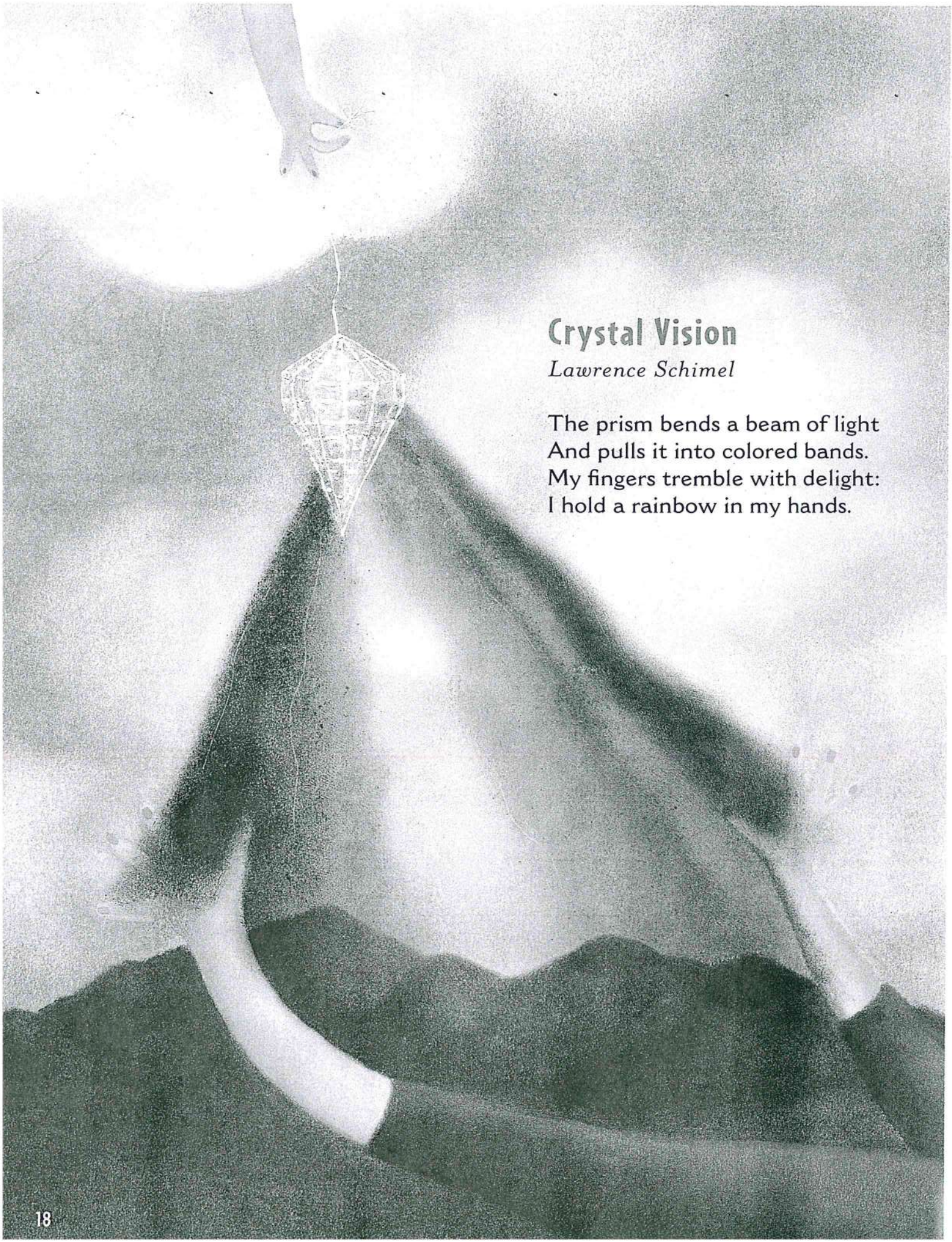
Big rocks into pebbles,
pebbles into sand,
I really hold a million million rocks here in my hand.



Magnet

Valerie Worth

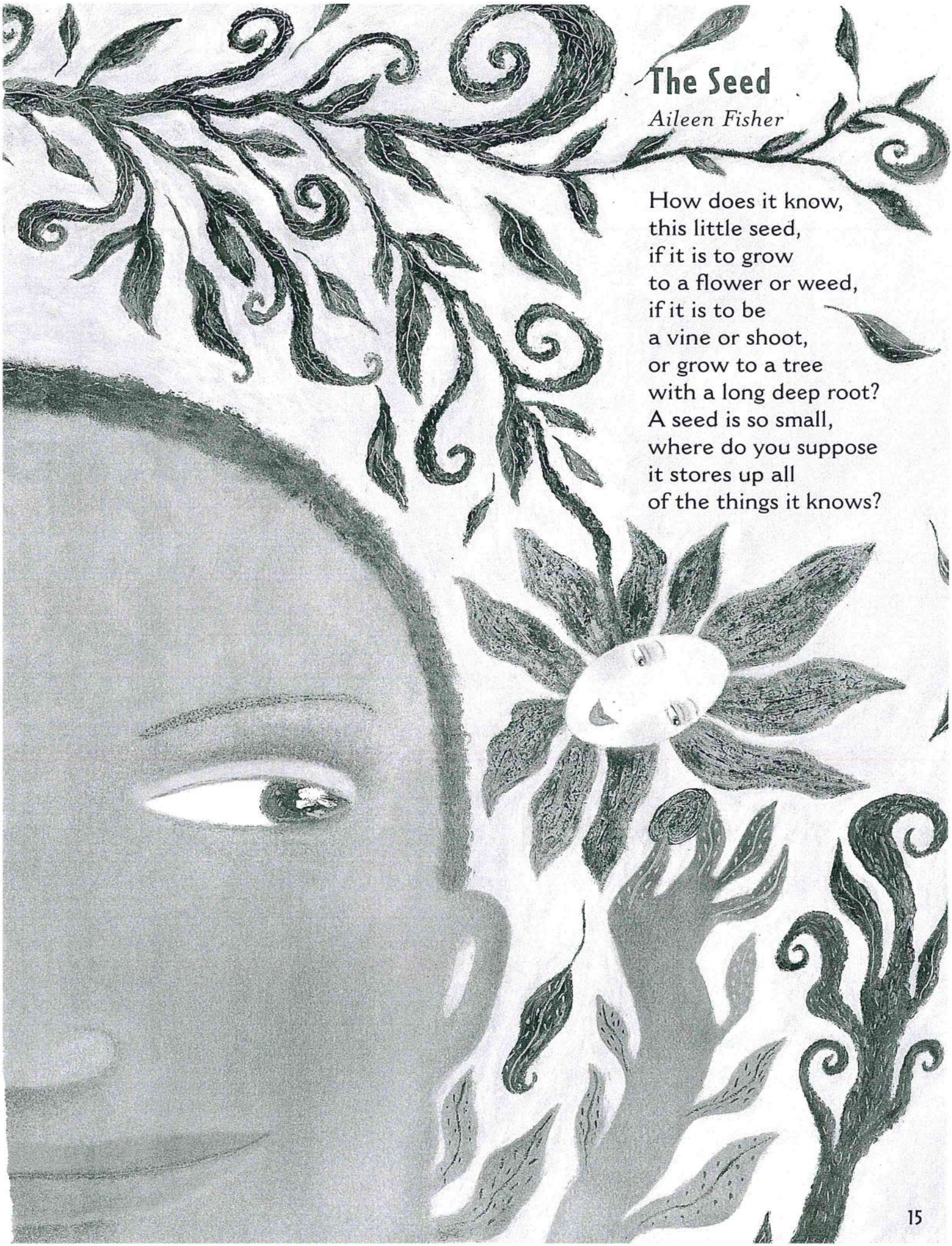
This small
Flat horseshoe
Is sold for
A toy: we are
Told that it
Will pick up pins
And it does, time
After time; later
It lies about,
Getting its red
Paint chipped, being
Offered pins less
Often, until at
Last we leave it
Alone: then
It leads its own
Life, trading
Secrets with
The North Pole,
Reading
Invisible messages
From the sun.



Crystal Vision

Lawrence Schimel

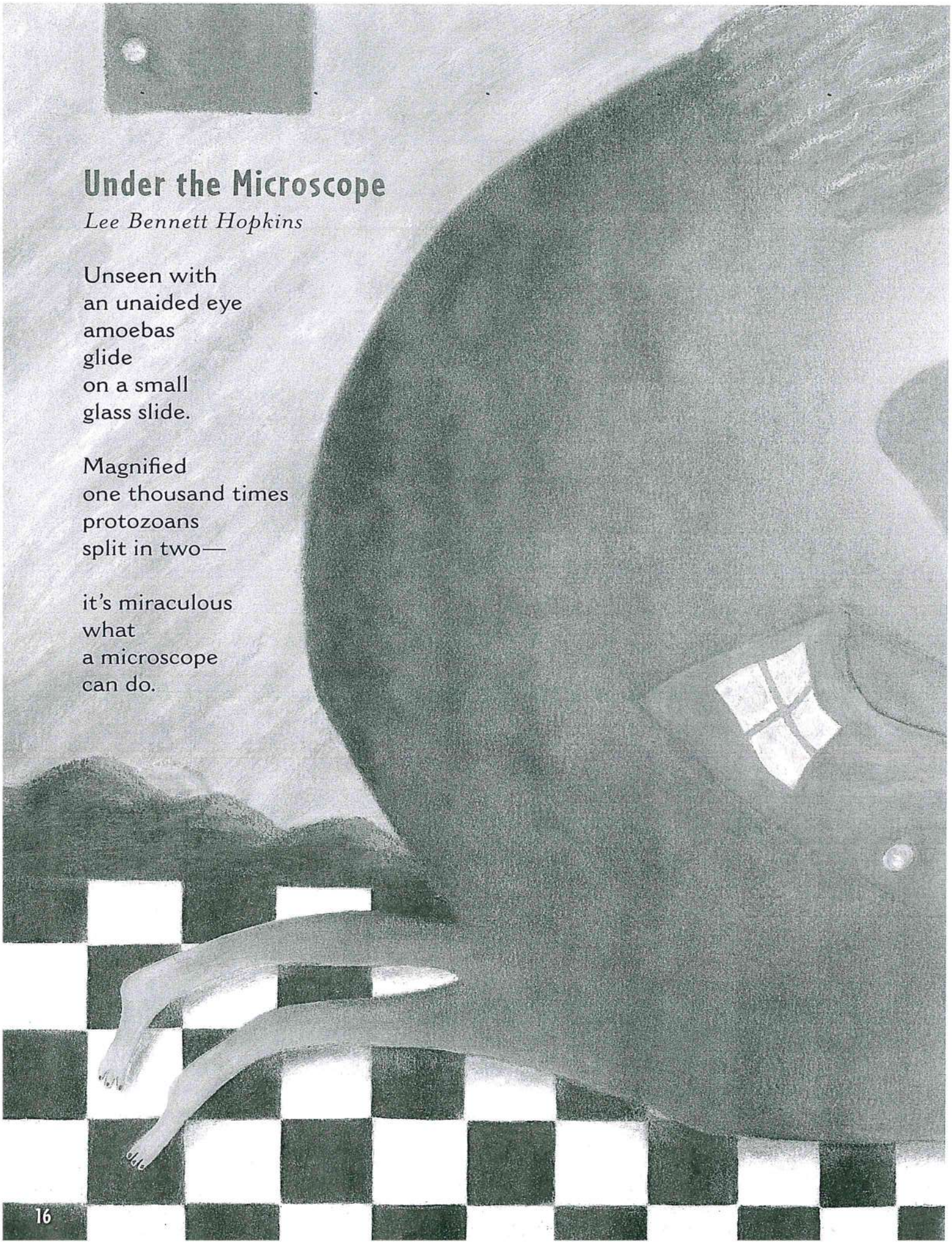
The prism bends a beam of light
And pulls it into colored bands.
My fingers tremble with delight:
I hold a rainbow in my hands.



The Seed

Aileen Fisher

How does it know,
this little seed,
if it is to grow
to a flower or weed,
if it is to be
a vine or shoot,
or grow to a tree
with a long deep root?
A seed is so small,
where do you suppose
it stores up all
of the things it knows?



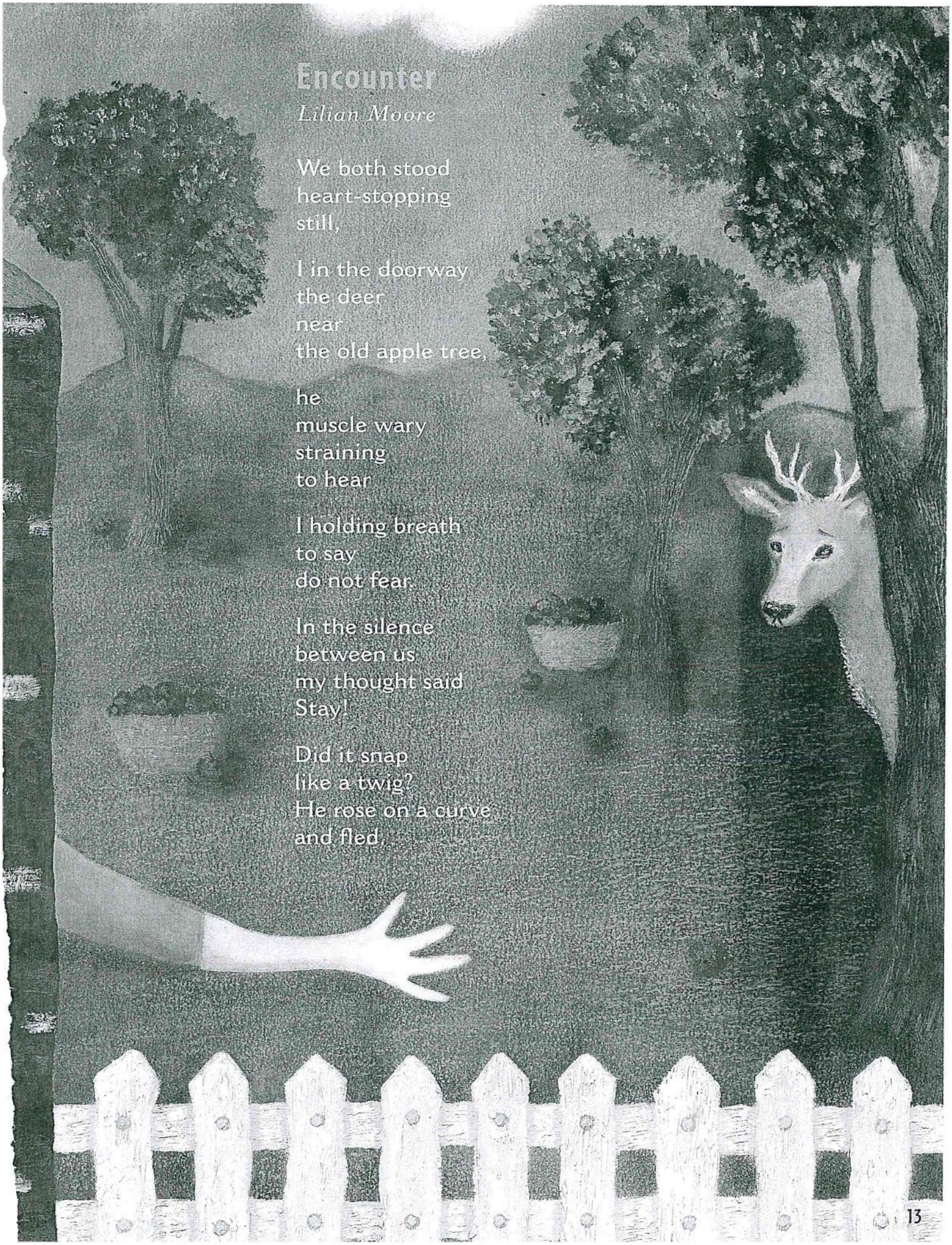
Under the Microscope

Lee Bennett Hopkins

Unseen with
an unaided eye
amoebas
glide
on a small
glass slide.

Magnified
one thousand times
protozoans
split in two—

it's miraculous
what
a microscope
can do.



Encounter

Lilian Moore

We both stood
heart-stopping
still,

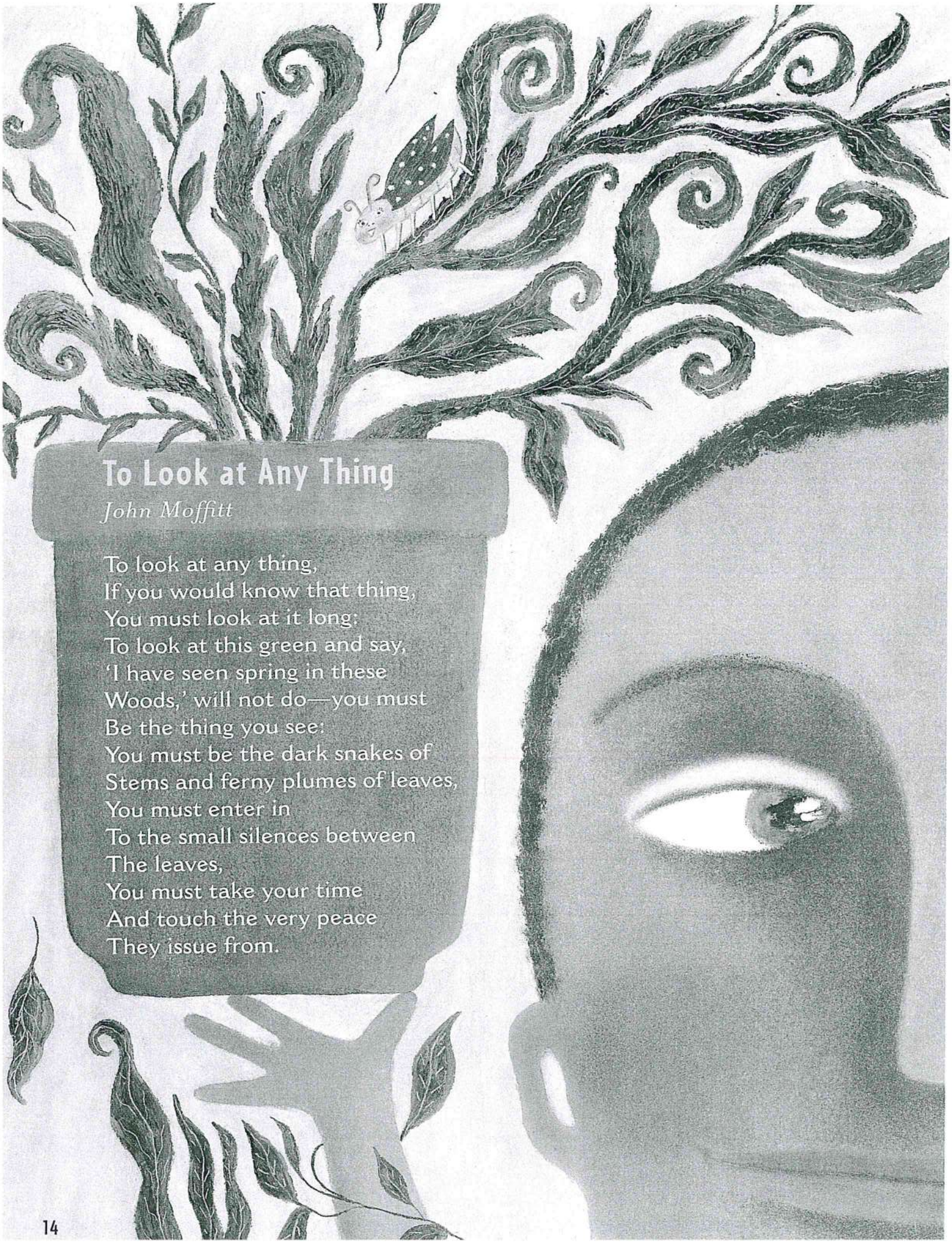
I in the doorway
the deer
near
the old apple tree,

he
muscle wary
straining
to hear

I holding breath
to say
do not fear.

In the silence
between us
my thought said
Stay!

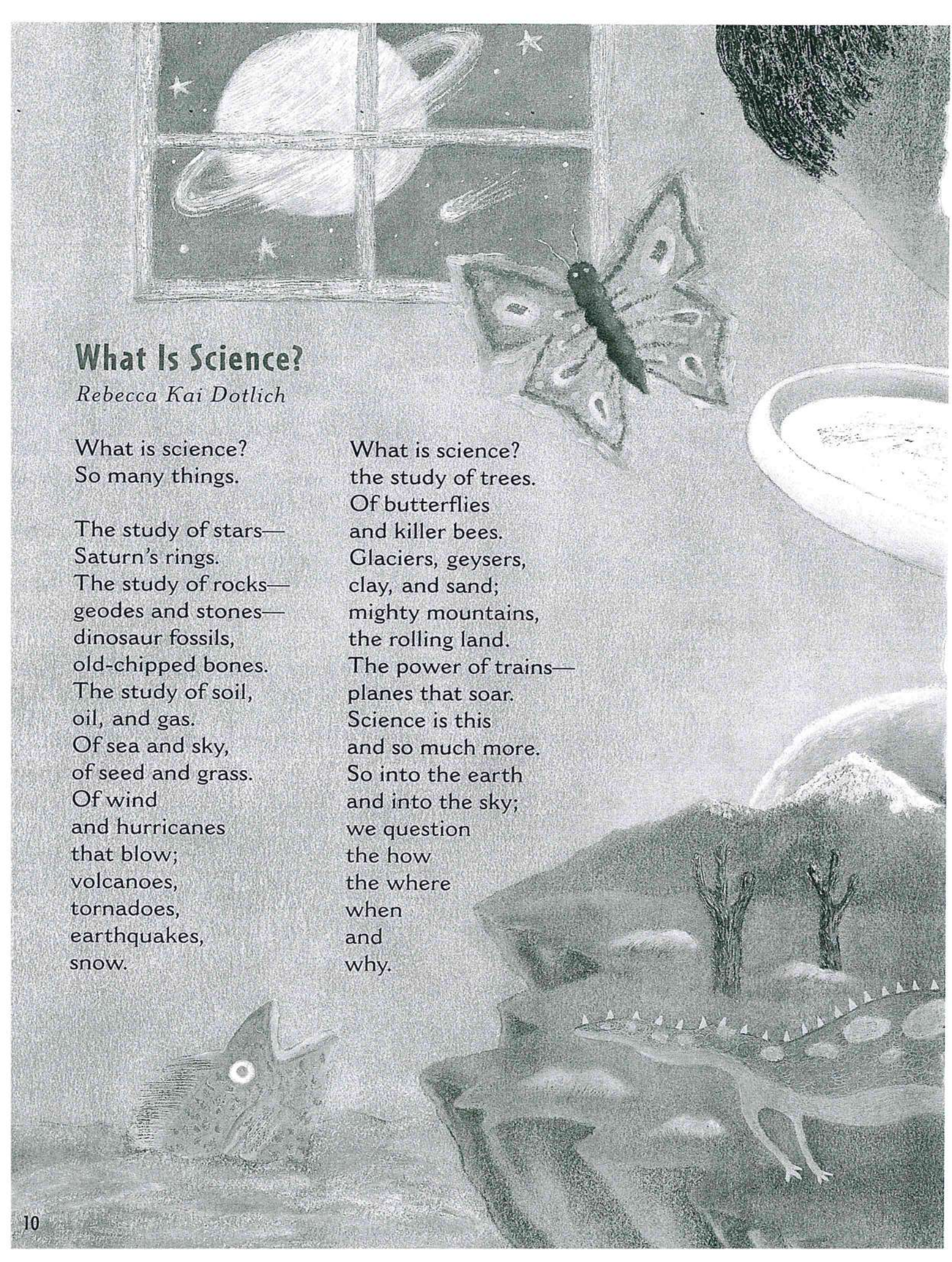
Did it snap
like a twig?
He rose on a curve
and fled.



To Look at Any Thing

John Moffitt

To look at any thing,
If you would know that thing,
You must look at it long:
To look at this green and say,
'I have seen spring in these
Woods,' will not do—you must
Be the thing you see:
You must be the dark snakes of
Stems and ferny plumes of leaves,
You must enter in
To the small silences between
The leaves,
You must take your time
And touch the very peace
They issue from.



What Is Science?

Rebecca Kai Dotlich

What is science?
So many things.

The study of stars—
Saturn's rings.
The study of rocks—
geodes and stones—
dinosaur fossils,
old-chipped bones.
The study of soil,
oil, and gas.
Of sea and sky,
of seed and grass.
Of wind
and hurricanes
that blow;
volcanoes,
tornadoes,
earthquakes,
snow.

What is science?
the study of trees.
Of butterflies
and killer bees.
Glaciers, geysers,
clay, and sand;
mighty mountains,
the rolling land.
The power of trains—
planes that soar.
Science is this
and so much more.
So into the earth
and into the sky;
we question
the how
the where
when
and
why.

How do seeds know which way is up?

It's dark underground
Where sunlight can't go,
So how does a seed
Know which way to grow?

The root is the first
To grow from the seed—
Down into darkness
It digs at full speed.

Gravity sensors
Within each young root
Teach it to follow
A straight downward route.

And once this young root
Has taken the lead,
A tender green shoot
Sprouts out of the seed.

The shoot only knows
That its life's pursuit
Means heading the opposite
Way of the root.

Since shoots need sunlight
To live and to grow,
They force themselves up
Through dark dirt below.

The roots need water
And the shoots need light.
Each go their own way
And it works out just right!

Why do onions make us cry?

Tomatoes do not make us cry,
But onions surely do.
Why do onions bring on tears,
And make us go "boohoo"?

When we cut an onion,
We break apart its cells.
Inside the cell is onion oil
Which really, really smells!

The oil turns to vapors
That sting our nose and eyes.
To wash away the stinging stuff
The eye makes tears and cries!

Do spiders stick to their own webs?

The spider weaves a sticky web
To capture bugs to eat.
What keeps the spider's sticky web
From sticking to her feet?

Spider webs are very tricky
Because not all the strands are sticky.
Unlike the passing hapless fly,
The spider knows which strands are dry.

But if she accidentally stands
Upon one of the sticky strands,
She still would not get stuck, you see—
Her oily body slides off free.

Do turtles leave their shells?

The turtle's shell is cumbersome
And makes his movements slow.
Why doesn't he just take it off?
That's what I'd like to know.

Between his backbone and his shell
There is a strong connection.
It suits him well, he likes to have
His own built-in protection.

For if he tried to leave his shell,
He'd have to leave his bones as well.
So turtles really do not mind
That they can't leave their shells behind.

What is the "Man in the Moon"?

What puts the face
On the "Man in the Moon"?
Is it the shadows
Of crater and dune?

No mountain or crater
Is so high or low,
That seen from our planet
Its shadow would show.

The face isn't shadows,
The scientists find,
But rocks the moon's made of
And how they combine.

Some rocks absorb light,
And others reflect it—
That changes the way
That our eyes detect it.

So sunlight's reflection
Off each different place
Makes light and dark patches,
Which form the moon's face.

What is the sound in a seashell?

Inside the shell there is a sound,
Mysterious to me.
How is it that the seashell can
Sound so much like the sea?

A seashell held up to your ear
Will block out background sound.
If you used a jar instead,
The same sound would be found.

Air molecules that bounce around
Are half of what you hear.
And half the sound is your own blood
That's rushing through your ear!

Why do leaves change colors?

The oak tree always lets me know
When autumn has begun.
But why do its dark green leaves
Change colors one by one?

It's chlorophyll that feeds the tree
And makes the leaves look green.
But underneath and out of view
Are hues that can't be seen.

When the summer ends at last,
And days grow short and cold,
The chlorophyll then fades away,
Revealing flecks of gold.

When all the chlorophyll is gone,
Instead of green we see,
Lovely yellow, orange and red,
Bright leaves on the tree!

How do cats purr?

A dog knows how to wag her tail,
But only kitties purr.
How do they make that purring sound,
So deep inside their fur?

Their belly muscles flutter
When the kitties are content.
The flutter makes small puffs of air,
Which to their throats are sent.

There the tiny puffs become
The purring sound so sweet.
Hold a happy kitty close
And feel the rapid beat.

Bigger cats, like tigers, purr.
The ocelot and cheetah, too.
They purr just like the kitty does.
I think that's neat, don't you?

What do clouds feel like?

Would clouds feel fluffy,
Soft and grand,
If I could touch them
With my hand?

To clutch a cloud
Inside your fist
Would be like holding
Morning mist.

Clouds are not
The way they seem.
They weigh no more
Than fog or steam.

They're made of tiny
Water drops,
So light they float
Above rooftops.

Why do snakes shed their skins?

Elephants don't shed their skins,
Nor do pigs or crows.
So why do snakes take off their skins
Like people take off clothes?

Snake skin doesn't stretch too much,
And snake skin doesn't grow.
So as the snake gets bigger,
He has no place to go.

He simply has no other choice,
Except to shed his skin.
He slides it off in one long piece,
Starting with his chin.

Before he's through, he even sheds
The clear skin from his eyes.
And then he wears a brand new skin
That's in a larger size!

Do islands float?

Does an island
Bob and float
Upon the ocean
Like a boat?

Islands are the
Part we see,
Of mountains
Underneath the sea.

They are as solid,
And as still,
As any other
Ridge or hill.

They do not move
Despite the motion
Of the heaving,
Rocking ocean.

How do birds fly?

If I had wings
Could I then fly,
And swoop and soar
Across the sky?

To fly, I'd need
Much more than wings.
'Cause wings are just
The start of things.

Some birds have wings
That are too small.
Ostriches
Can't fly at all!

A flying bird's
Proportioned right,
To make her swift
And strong and light.

Her beak weighs less
Than teeth and jaws.
Her bones are hollow,
Head to claws.

With lungs and heart
Big for her size,
She hardly tires
When she flies.

And feathers are
The perfect touch.
They keep her warm,
But don't weigh much.

Why does popcorn pop?

Popcorn does the strangest thing
Of all the foods we eat.
Why does it pop and get so big
When it's put over heat?

Popcorn kernels have a shell
That keeps their moisture in.
The kernel's shell is fairly tough,
But also very thin.

When you heat the kernels up,
The moisture turns to steam.
If you make them hotter still,
The pressure gets extreme.

The steam inside the shell expands,
The kernel overloads,
'Til it's as full as it can be
And "POP!" the corn explodes!

Where do fish go in winter?

When lakes turn to ice
And are covered with snow,
What becomes of the fish
Who are living below?

It's not so exciting
Down under the ice,
But fish find it restful
And really quite nice.

It's dark and it's cold,
But the water's not frozen.
In fact, it's just perfect
For fish to repose in.

They breathe very little.
Their swimming gets slower.
Each fish makes his heart rate
Go lower and lower.

And except for occasional
Lake bottom treats,
The whole winter long
A fish hardly eats.