

## Galaxy Formation

*Alan Shapiro*

*for Reg Gibbons*

In an article I'm reading in my neighborhood bar, I learn that dark matter, "though unseen, makes up more than 90 percent of the mass of the universe."

Older than visible matter, wherever dark matter has coalesced,

its gravitational force pulls stars and gasses into galaxies and clusters of galaxies, and even super clusters, holding in place what otherwise would wash away in the expanding universe.

I hear a woman to my right talking on her cell phone; not wanting to be noticed, her voice is soft but tense with what it's trying not to sound like, saying "Honey, listen to me, honey. Honey. Honey. I am not your mother. I Am Not Your Mother." Then she holds the phone away from her ear so even I can hear the tiny insect buzzing of what against her ear would be his shouting back.

Star light has to bend, the writer says, around that invisible dense matter, warping itself in order to be seen.

So even after we factor in the distorting effect of time and distance, the light years of light years that light has to cross to reach us, the visible shapes we see inside our giant telescopes look nothing like the shapes they are.

There's a white shark on the wall next to the television screen where I see an aerial view of a funeral procession or a rally—fists shake in unison, and if the sound weren't muted I might hear voices chanting, but all I hear around me is a thick gauze of bar talk and laughter and the woman saying over and over, honey, honey, listen, honey, honey, while on the screen I continue looking up at what I'd be looking down on if I were there:

the massive seething a quivering cell seen under a microscope,

a dense coating of flies on something dead.

Then there's a lake, and a bright red Jeep flies out of it and lands safely on a dirt road and drives off right to left as if into the open mouth of the bright white shark.

The writer of the article describes dark matter as a black canvas on which the visible universe is painted. If that figure captures best the relationship of gloom to glitter, couldn't the canvas also be the painter, the unseen the conjuror of the seen, as if the 10 percent that doesn't hide were being imagined by the ninety percent that does?

Dark matter. She is not his mother. She refuses to be his mother.

But there are places in the cosmos, however few and far between, where "galaxies form where no dark matter is, at least none we can detect."

In the physical therapy room of the nursing home my mother placed my grandmother in after she slipped in a puddle of urine and fell and broke her hip, the old, the damaged, at various stages of infirmity, were working with therapists at different stations in the room—one woman looked quizzically at her hand, as if it wasn't hers and wasn't not, matter neither dark nor bright, as it tried to squeeze a yellow ball, over and over, only the tips of her fingers twitching, while the young therapist, more girl than woman, kept urging her on the way a mother would,

though she was not her mother,

saying, "That's it Lois, come on now, kiddo, you can do it, you did it yesterday." And nearby, a man wizened to his very bones held fiercely to the rails of a small track down which he took unsteady small step after small step, like a toddler crossing wet stones—he was followed by another woman with her hands out ready to catch him if he fell. Everywhere inside the room the young the healthy, the fortunate, were encouraging the old, the sick, the hobbled—everywhere the old, eyes burning, were pushing back with all the might inside their bodies against the dark matter their bodies had become.

Places, the writer tells me, where light too is a force, light too a kind of pressure

though my grandmother refused it, sitting in her wheelchair, looking on, her silence the darkest matter, an impossible density nothing could get around without distortion, broken only by her saying when my mother came to visit

You are not my daughter, I don't have a daughter,

saying it over and over, as if she knew my mother would carry the voice inside her ever after, beyond the funeral, no matter whom she spoke to, or where she went, the voice reverberating in her voice reverberating in the ones she loved, the ones who loved her

the distorting effects of time and distance nothing the shape it is

the white shark is swallowing the president who shakes the hand of another president in a bright room made brighter by the flash of cameras

and an old man yelling as he carries a child to some kind of safety from a smoking doorway

the woman flips shut her phone and stuffs it in her bag and disappears

and again the lake spits out the jeep that lands safely and drives away.