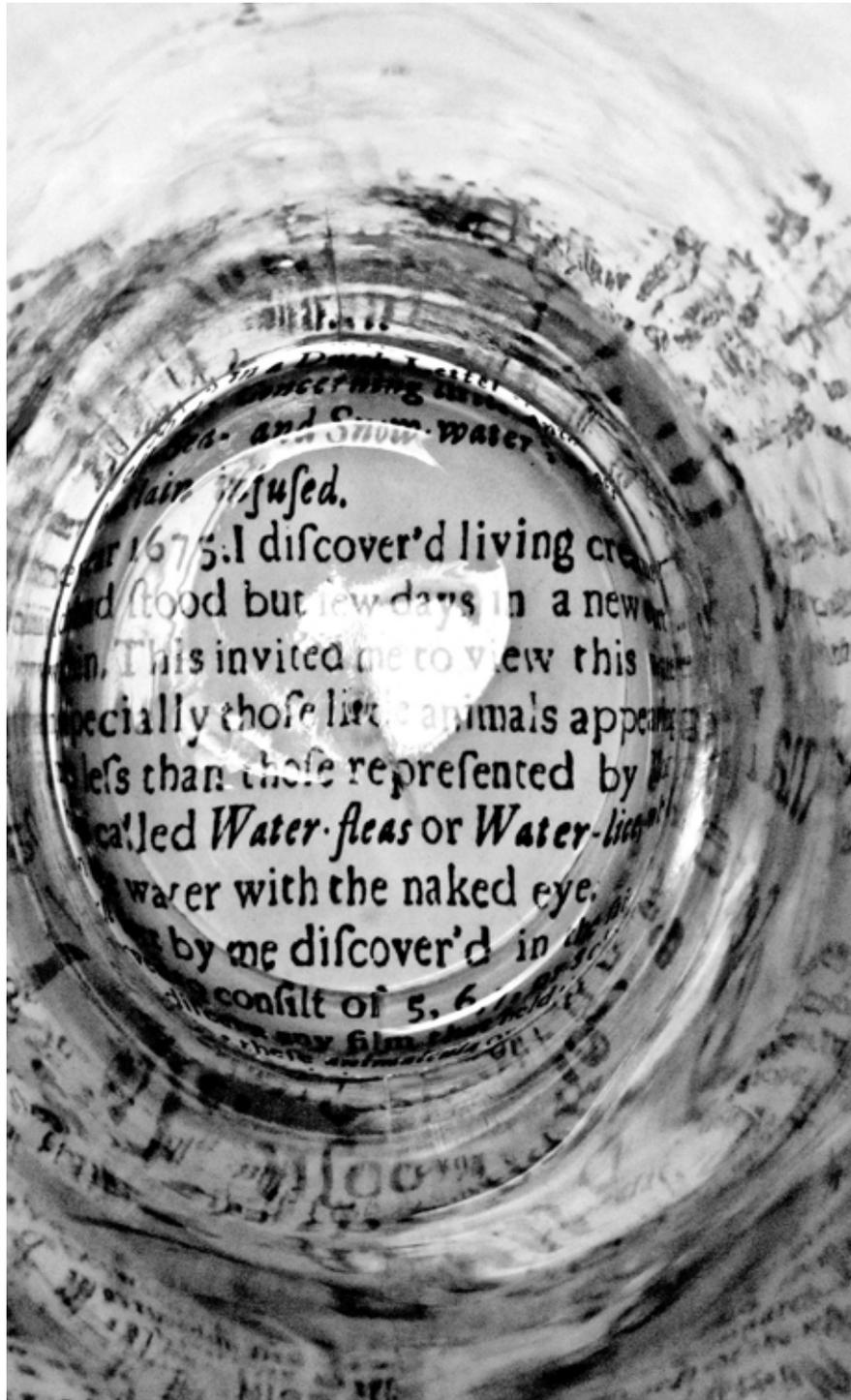


III ANIMALCULES (1675-1677)

For me this was among all the marvels that I have discovered in nature the most marvelous of all, and I must say that, for my part, no more pleasant sight has yet met my eye than this of so many thousands of living creatures in one small drop of water, all huddling and moving, but each creature having its own Motion.

Antoni van Leeuwenhoek





ANIMALS STRANGER THAN ANY DREAM

In 1675 my father made an amazing discovery. One that has changed forever the world for him—and me—and the Learned Society and the last three kings of England, the merchants of Rotterdam, the medical students of Leyden, the pastors of Delft, even the Landgrave of Hesse, the Elector Palatine. Even my Aunt De Mey before she died.

In rain water, well water, moat water, and writhing between steeped grains of pepper my father discovered animalcules smaller than the hair of a mite, more numerous than all the human beings born since Our Creator made Adam. Animals stranger than any dream. They have legs but no eyes. The sun shines right through them. But they are as alive as you and I. They are voracious. They are everywhere.

Take a clean Delft bowl and put it out in the courtyard when it rains—you will find them, fallen from the sky back to the earth from which they rose on the heated air like motes of dust rise in an empty attic chamber. Go to the well and draw water early on a June morning, and with each turn of the well wheel you pull toward you a multitude of God's creatures. When you scour your mouth with salt, another multitude takes refuge in the spaces between your teeth. When you rinse your mouth, you take in even more life than you have just destroyed. This happens to each of us every minute of every day—whether we know it or not.

For the knowledgeable, my father's discovery has changed our place in the world. From mite to whale is no greater a distance than that between one of these animalcules and the mite itself. Imagine that! It disturbs us as it must have disturbed our forefathers to learn the world wasn't flat. As it disturbed Seigneur van Zuleichem when young to learn that the blood returned to the heart as waves return to the shore, as it disturbed us all to learn the earth revolves around the sun no more necessary to it than the moon



LIKE EELS IN JELLY

In the summer of '77, a medical student from Leyden came to my father with an introduction from his cousin, the renowned Professor Craaven of Leyden. He wanted to see the amazing animalcules my father had described to the Royal Society. In exchange, he told my father, he had brought a new kind of animalcule for my father to see. He pulled out from his cloak a tube like the one my father had carried to Sheviningen to collect water from the sea, He had sealed the tube, as my father did his own, with a strip of bladder.

My father took the tube with interest.

"What is it we have here? It looks thick for water. Cloudy. Saliva perhaps? Phlegm?"

The young man shook his head. He glanced over at me. I could not believe he was a student from Leyden. He dressed with the care of a burgomaster. In Leyden, so I'd been told, the students walked the streets in their night clothes.

"Well," my father said. "Let us look." He ushered the young man up to his study.

"Where's my wife?" he asked me.

"Resting. I have sent for Antoni."

My father blinked. "Could you send out to Adriaen Beijeren and ask when next he goes to Rotterdam? I have received notice from your Aunt Catharina that the parcel I was expecting from England has arrived."

But when my father looked through his small glass tube at the animalcules that Ham, the young man from Leyden, had brought with him, he thought no more of what he'd already said to the learned gentlemen. He thought only of what he was to say next. But first he had some doubts to settle in his own mind.

"Did you have him sign an attestation?" I asked at table that evening.