

section of the previous one, blown up. Like you'd blow up a detail of a photograph, and then a detail of the detail, and so on, forever. Or in her case, till she ran out of pages.

→ HANNAH Is it difficult?

VALENTINE The maths isn't difficult. It's what you did at school. You have some x -and- y equation. Any value for x gives you a value for y . So you put a dot where it's right for both x and y . Then you take the next value for x which gives you another value for y , and when you've done that a few times you join up the dots and that's your graph of whatever the equation is.

HANNAH And is that what she's doing?

VALENTINE No. Not exactly. Not at all. What she's doing is, every time she works out a value for y , she's using *that* as her next value for x . And so on. Like a feedback. She's feeding the solution back into the equation, and then solving it again. Iteration, you see.

HANNAH And that's surprising, is it?

VALENTINE Well, it is a bit. It's the technique I'm using on my grouse numbers, and it hasn't been around for much longer than, well, call it twenty years.

Pause.

HANNAH Why would she be doing it?

VALENTINE I have no idea.

Pause.

I thought you were doing the hermit.

HANNAH I am. I still am. But Bernard, damn him ... Thomasina's tutor turns out to have interesting connections. Bernard is going through the library like a bloodhound. The portfolio was in a cupboard.

VALENTINE There's a lot of stuff around. Gus loves going through it. No old masters or anything ...

HANNAH - VALENTINE

HANNAH The maths primer she was using belonged to him—the tutor; he wrote his name in it.

VALENTINE (*Reading*) 'Septimus Hodge.'

HANNAH Why were these things saved, do you think?

VALENTINE Why should there be a reason?

HANNAH And the diagram, what's it of?

VALENTINE How would I know?

HANNAH Why are you cross?

VALENTINE I'm not cross. (*Pause.*) When your Thomasina was doing maths it had been the same maths for a couple of thousand years. Classical. And for a century after Thomasina. Then maths left the real world behind, just like modern art, really. Nature was classical, maths was suddenly Picassos. But now nature is having the last laugh. The freaky stuff is turning out to be the mathematics of the natural world.

HANNAH This feedback thing?

VALENTINE For example.

HANNAH Well, could Thomasina have—

VALENTINE (*Snaps*) No, of course she bloody couldn't!

HANNAH All right, you're not cross. What did you mean you were doing the same thing she was doing? (*Pause.*) What *are* you doing?

VALENTINE Actually I'm doing it from the other end. She started with an equation and turned it into a graph. I've got a graph—real data—and I'm trying to find the equation which would give you the graph if you used it the way she's used hers. Iterated it.

HANNAH What for?

VALENTINE It's how you look at population changes in biology. Goldfish in a pond, say. This year there are x goldfish. Next year