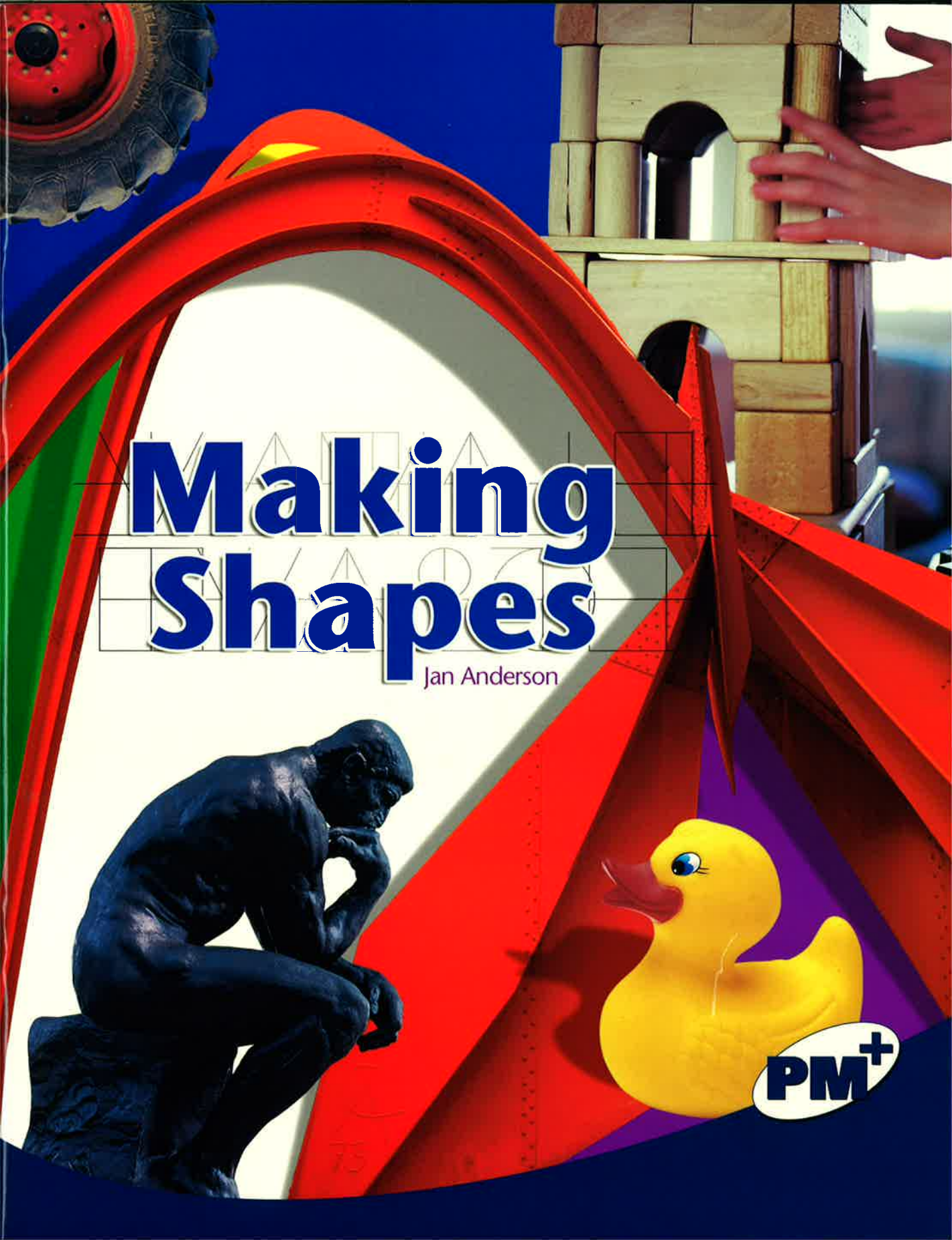

Making Shapes
Jan Anderson
PM+

For teachers' inspection ONLY

Contents

Chapter 1 Shapes Around Us 4

Chapter 2 Clay 6

Chapter 3 Wood 8

Chapter 4 Wool and Cotton 12

Chapter 5 Rubber 14

Chapter 6 Metals 18

Chapter 7 Glass 24

Chapter 8 Plastics 28

Glossary 32

Further Reading and Index 33

Chapter 1

Shapes Around Us



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Everywhere we look, there are objects made in different shapes. A ball is round like a sphere. A coin is shaped like a very flat cylinder. A sculpture, however, has an irregular shape.

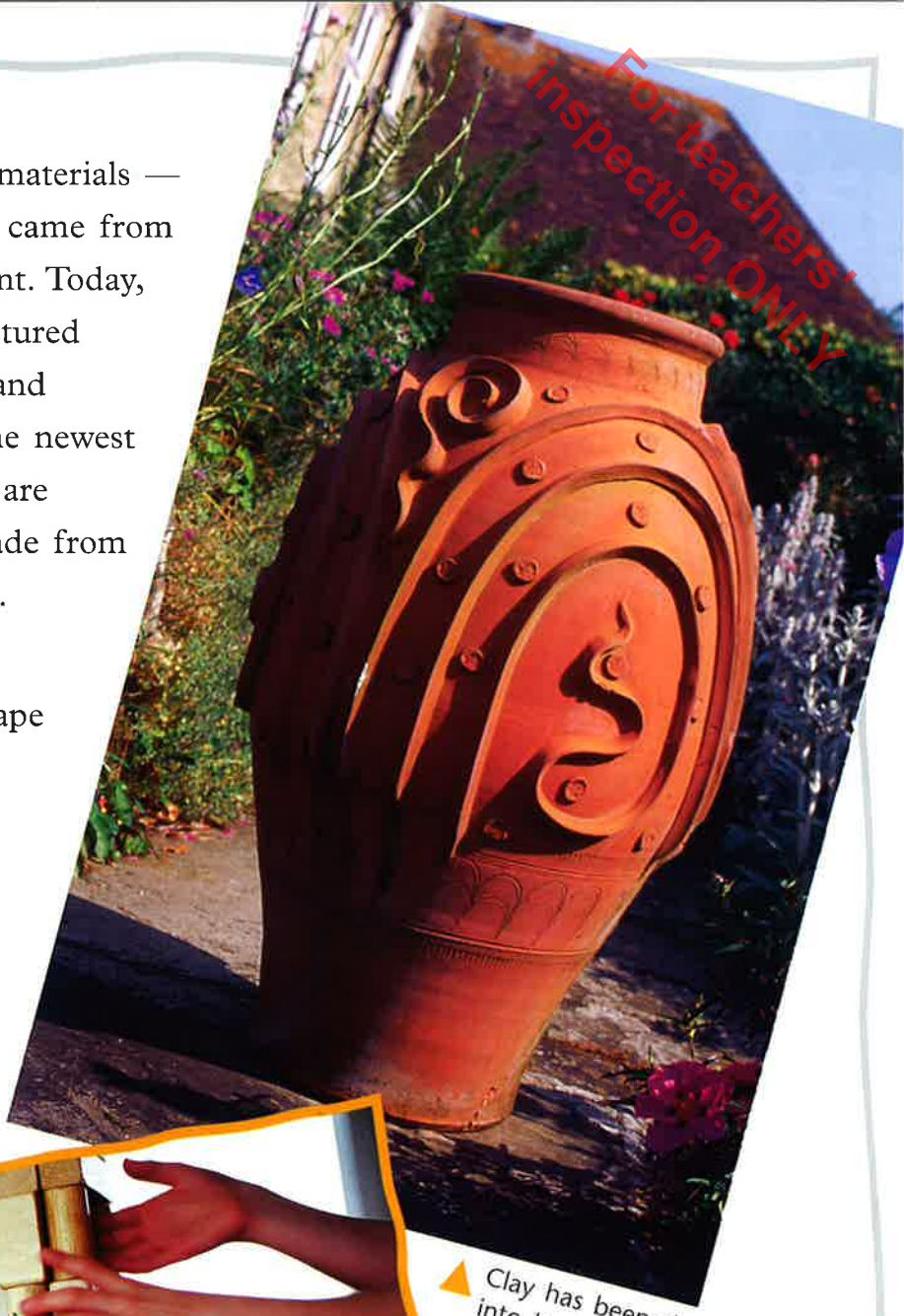
How do we make these shapes? What kinds of materials do we use? These are the questions that designers think about every time they design something new.



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In the past, most materials — like wood and clay — came from the natural environment. Today, designers use manufactured materials, like metals and plastics. Plastics are the newest kind of material; they are **synthetic**, and are made from chemicals found in oil.

With modern technology, we can shape materials in new and different ways. Designers today have many materials to choose from, and use many processes to shape things.



Clay has been shaped into beautiful objects for thousands of years.



Wood is a natural material.

Chapter 2

Clay

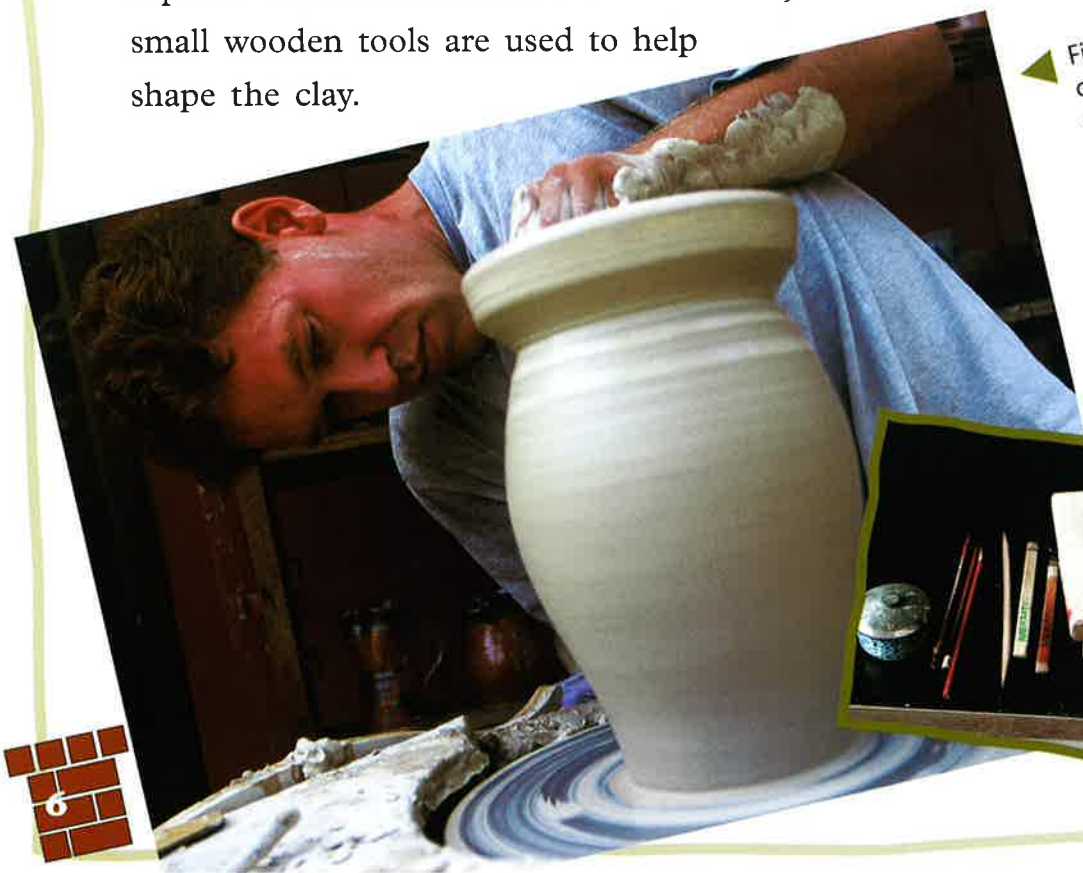
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Clay is a natural material that people have used for centuries. It is a sticky kind of earth that can be made into objects like bowls and cups, and even bricks for building houses.

The potter's wheel

A bowl or vase begins as a ball of soft clay. The potter centres the ball on a spinning wheel. The hands are used as tools to shape the clay upwards or outwards.

Objects made on a potter's wheel are **symmetrical**. Although a potter's main tools are his or her hands, sometimes small wooden tools are used to help shape the clay.



First the potter centres the ball of clay. Then he shapes the vase.



Some tools a potter may use.

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Making bricks from clay

Until the 1950s, bricks were shaped by pressing clay into **moulds**. Some bricks are still made this way, but most are made by forcing clay through a **die** that is shaped like a rectangle. A continuous 'column' of clay is **extruded**.

The column of clay is cut into individual bricks using wire. The bricks are then baked in a **kiln.**



Chapter 3

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Wood



Like clay, wood is a natural material. One of the oldest ways of shaping wood was to carve it.

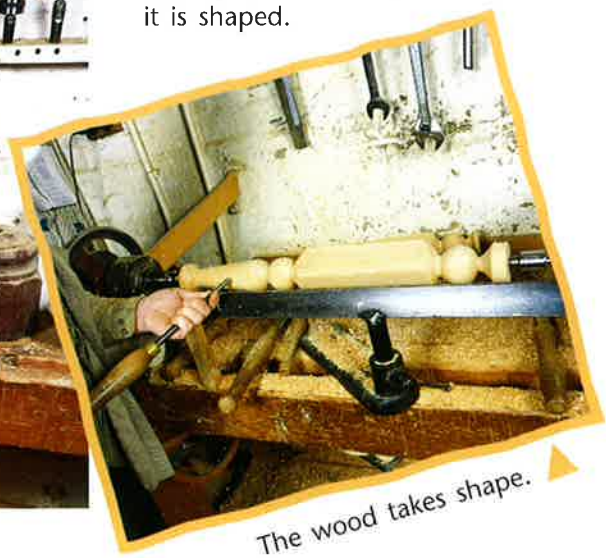
Wood-turning

Wood-turners work on a machine called a **lathe**. A lathe is very similar to a potter's wheel.

A plain piece of wood is put into the lathe, where it is held firmly. The wood is turned around and around. As it turns, just like the ball of clay on the potter's wheel, the wood-turner shapes the wood.



A plain piece of wood in the lathe — before it is shaped.



The wood takes shape.