PERILOUS PURSUIT

We have already shown you how the basic procedures of an adventure game are defined using LOGO (see page 775). Here, we discuss the procedures for moving between rooms and dealing with 'perils', before starting to build up the fantasy world of our own game.

Now that we have set up the basic structure of the game, we must consider procedures for moving between rooms. We will allow four directions of movement — north, south, east and west.

```
TO N
   MOVE "N :EXIT.LIST
END

TO S
   MOVE "S :EXIT.LIST
END

TO E
   MOVE "E :EXIT.LIST
END

TO W
   MOVE "W :EXIT.LIST
END
```

A procedure called MOVE first checks that you can move in that direction, and then leaves the actual movement to another procedure — MOVE1.

```
TO MOVE :DIR :LIST
   IF EMPTY? :LIST THEN PRINT [YOU CAN'T GO
   THAT WAY] STOP
   MAKE "EXIT FIRST :LIST
   IF :DIR = FIRST :EXIT THEN MOVE1 LAST :EXIT
   STOP
   MOVE :DIR BUTFIRST :LIST
END

TO MOVE1 :NO
   MAKE :ROOM.NAME HERE.DETAILS
   MAKE "HERE :NO
   ASSIGN.VARIABLES
   LOOK
END
```

MOVE1 takes a room number as input. First, it reassembles a list from its various components and reassigns it to the room name (there may have been changes while the adventurer was in the room). Then it alters HERE to the new room number and reassigns the various lists. This is the procedure it uses:

```
TO HERE.DETAILS
   OUTPUT ( LIST :DESCRIPTION :CONTENTS
   :EXIT.LIST )
END
```

This uses the primitive LIST, which makes a list of its inputs. The difference between LIST and SENTENCE is best explained by an example:

```
LIST [A] [B] [C] outputs [[A] [B] [C]]
SENTENCE [A][B][C] outputs [A B C]
```

Since we wish to keep the individual components as sublists, we need to use LIST here rather than SENTENCE.

PERILS OF THE GAME

Generally, within an adventure game there are certain 'perils' to be avoided, such as poisonous snakes or quicksand. When the player encounters a peril we need to trigger off a certain sequence of actions, and prevent any movement out of the room until the peril has been overcome. The way we have done this is to add another list to our room list, which contains the names of any special peril procedures to be run on entering that room. So, we might define ROOM.2 as [[[YOU ARE IN A DARK DAMP CAVE][THERE IS A LIGHT IN FRONT OF YOU]] [BOX] [[N 5][E 6]][SNAKE]] where SNAKE is a 'peril'. As a consequence of adding this to our list, we must modify the LOOK procedure given in the previous instalment: