



```

PRINT1 "?
MAKE "INPUT COMMAND
IF (:INPUT = "START) THEN START STOP
PRINT [COME OFF IT!]
DEAD
END
TO COMMAND
MAKE "INP REQUEST
IF :INP = [] THEN PRINT1 "? OUTPUT
COMMAND
OUTPUT FIRST :INP
END

```

Rubbing the ring makes the genie appear:

```

TO RUB :OBJ
IF :OBJ = "RING THEN RUB.RING STOP
PRINT [IT'S NOW MUCH CLEANER THAN IT
WAS]
END
TO RUB.RING
IF HERE! "RING THEN GENIE ELSE PRINT [I SEE
NO RING]
END

```

The genie offers to take you home, but if the invitation is declined then a great wind blows you at random to a room in the east part of the cave:

```

TO GENIE
PRINTL [[A GENIE APPEARS, AND ASKS:] ["DO
YOU WISH TO RETURN HOME?"]]
PRINT1 "?
MAKE "ANS FIRST COMMAND
IF ANYOF :ANS = "YES :ANS = "Y THEN
RETURN ELSE BLOW
END
TO RETURN
PRINT [HOME AT LAST]
IF MEMBER? "SCEPTRE :INVENTORY THEN
PRINT [CONGRATULATIONS ON FINDING THE
SCEPTRE!] ELSE PRINTL [[WELL AT LEAST YOU
ESCAPED WITH] [YOUR LIFE]]
END
TO BLOW
PRINT [THERE IS A MIGHTY RUSHING WIND]
PRINT "
MOVE1 (6 + (RANDOM 5))
END

```

The only thing that can be opened is the chest, and this contains a poisonous spider. The skull on the lid is a warning not to open it — but some people never learn!

```

TO OPEN :OBJ
IF :OBJ = "CHEST THEN OPEN.CHEST ELSE
PRINT [YOU CAN'T OPEN IT]
END
TO OPEN.CHEST
PRINTL [[THERE IS A POISONOUS SPIDER] [IN
THE CHEST] [IT BITES YOU]]
DEAD
END

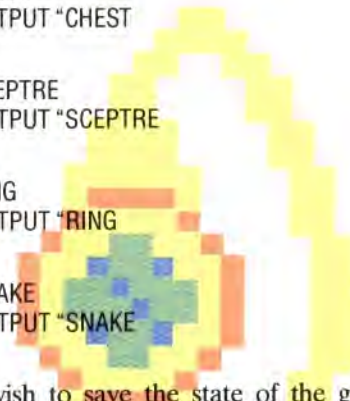
```

Finally, here is a list of all the nouns in the game:

```

TO SWORD
OUTPUT "SWORD
END
TO CHEST
OUTPUT "CHEST
END
TO SCEPTRE
OUTPUT "SCEPTRE
END
TO RING
OUTPUT "RING
END
TO SNAKE
OUTPUT "SNAKE
END

```



If you wish to save the state of the game for continuing later, just type SAVE "ADVENTURE, and the entire contents of the workspace are saved. Everything will be restored by READ "ADVENTURE.

In many ways LOGO is an ideal language for programming adventure games. There is one problem, however — there is just not enough room in present day implementations of the language. The game given here barely fits within the memory allocation for the Commodore 64. Any extensions beyond this are going to demand compromises over which words to keep and which to reject.

Logo Flavours

Some versions of MIT LOGO do not have EMPTY?, ITEM, COUNT or MEMBER? Definitions for these were given in the last two instalments (see page 754 and page 775). In all LCS1 versions, use:

EMPTY? for EMPTY?
LISTP for LIST?
MEMBERP for MEMBER?
TYPE for PRINT1
AND for ALLOF
OR for ANYOF

There is a primitive, EQUALP, which tests whether its two inputs are the same. Use this for comparing lists and words in place of the equals sign (which works for lists on some LCS1 versions, but not on others).

The IF syntax in LCS1 LOGO is demonstrated by:

```
IF EMPTY? :CONTENTS [PRINT [NOTHING
SPECIAL]] [PRINT :CONTENTS]
```

The first list after the condition is performed if the condition is true, and the second if it is false.

On Atari LOGO use SE for SENTENCE, RL for REQUEST, and note that ITEM is not implemented.

The version of the game given in the text was run on the Commodore 64; some other machines may not have enough node space to run all of the game as it stands. If this is the case, then you will have to cut down the size of the game, omitting some of the descriptive words

LIZ121