NEW

No. 3

POSTER PROGRAMS

75p

GIANT POSTER INSIDE

Sorcerer's Lair

ZX81

An exciting graphics adventure game for the ZX81

Sorcerer's Lair

The Plot

King Xmon was furious. ''That rogue Zabad the Sorcerer has stolen the Chalice of Power,'' he roared. ''It must be recovered — summon my Champion, Melion!''

Melion was called and appeared before his King. The King wasted no time and charged him with the immediate recovery of the Chalice.

As the powers that Melion was about to encounter were essentially magical, he decided to take with him his magic staff. The staff would provide him with defence, the power to attack and money, if needed. Fully charged, it held 1000 units of power, and as he took it from its place, glistening in the light and with an aura of power shimmering around it, he knew he would need all the power it possessed.

Zabad dwelt in an underground system of chambers connected by tunnels and inhabited by many evil creatures. Originally excavated as burial chambers, this had for many years been the lair of Zabad and his 'pets'. For far and wide, people trembled at the very mention of the **Sorcerer's Lair.**

A mental command to his staff and the universe spun round. Melion was transported to an empty chamber in the Sorcerer's Lair. Already 500 units of his staff's power was exhausted. Now he could only return if he found the Chalice. With only 500 units of power left, it wasn't going to be easy . . .

Machine Code

This program uses four machine code routines. They are as follows, and are held in the first line (a REM line).

1) 16514 to 16527 Subroutine to check if key is pressed and find its value (in Register A)

2) 16528 to 16552 Routine calling 1) to check if valid key is pressed (compares to C$)

3) 16553 to 16623 Routine to move/scroll map sideways — calls routine 2, prints elements of M$

4) 16624 to 16637 A search routine to check and find the inverse X position on screen

Also held in the REM are two 'look-up' tables for the program.

16638 to 16721   An 84 byte table of chamber co-ordinates related to M$(YI,XI) for each room position

16772 to 16889   A 168 byte table containing room relationships, eg connecting rooms

At first I held these tables in two strings; however, this meant that each table occupied over twice as much memory because they were held once in the BASIC listing, and again in the variables area. My solution was to transfer them to the REM where they are only kept once, then to PEEK at them.

```
9000    PRINT "ADDRESS TO START ?";
9010    INPUT A
9020    PRINT A
9030    LET A$=""
9040    LET X=0
9050    IF A$="" THEN INPUT A$
9060    IF A$="S" THEN STOP
9070    IF X=0 THEN SCROLL
9080    IF X=0 THEN PRINT A;":   ";
9090    PRINT A$( TO 2);"   ";
9100    POKE A,16*CODE A$+CODE A$(2)-476
9110    LET A=A+1
9120    LET A$=A$(3 TO )
9130    LET X=X+1
9140    IF X=6 THEN GOTO 9040
9150    GOTO 9050
9200    PRINT "START ADDRESS ?"
9210    INPUT A
9220    FOR I=0 TO 21
9230    SCROLL
9240    PRINT A;":   ";
9250    FOR J=0 TO 5
9260    LET P=PEEK A
9270    LET N=INT (P/16)
9280    PRINT CHR$ (N+28);CHR$ (P-16*N+28);"   ";
9290    LET A=A+1
9300    NEXT J
9310    NEXT I
9320    IF CODE INKEY$<>118 THEN GOTO 9320
9330    GOTO 9220
```

Program 1. Hex loader routine.

To set up this section of the program, type in Program 1, which is a variation of the Hex loaders which have been printed many times: if you already have one then use that. Note that the code from line 9200 provides a mini disassembler — useful for checking your entries.

Before running this program, type in 1 REM followed by 380 dots, and newline.

If you now type POKE 16510,0 newline, you'll find 1 REM . . . has now become 0 REM . . . and cannot be removed — a useful safety device.

Now RUN the program and to the prompt ''START ADDRESS'' enter 16514 newline. Now enter all the code in Fig. 1 — *very* carefully. I suggest you enter the six bytes (12 characters) of each line — no spaces — and newline, then double check with the screen. If you do make an error, input S newline, RUN the program, enter the address at the start of the error line and re-enter all six bytes — continue as before. When it is all in, press S newline, and relax.

16514	CD	BB	02	44	4D	51
16520	14	28	F7	CD	BD	07
16526	7E	C9	CD	82	40	01
16532	06	00	2A	10	40	09
16538	0E	01	BE	C8	57	3E
16544	17	BE	7A	28	EB	23
16550	03	18	F3	01	CD	90
16556	40	3E	03	B9	C8	3D
16562	B9	3A	A9	40	20	07
16568	3D	FE	00	28	ED	18
16574	05	3C	FE	31	28	E6
16580	32	A9	40	2A	0C	40
16586	01	22	00	09	EB	2A
16592	10	40	01	12	00	09
16598	06	00	4F	09	06	15
16604	C5	01	20	00	ED	B0
16610	13	01	2F	00	09	C1
16616	10	F2	18	BE	3E	01
16622	18	D4	01	D6	02	2A
16628	0C	40	3E	BD	ED	B1
16634	E0	44	4D	C9	01	2A
16640	04	0F	04	2A	04	43
16646	07	06	07	0F	07	18
16652	07	21	07	2A	07	33
16658	07	3B	07	43	07	4B
16664	0A	03	12	06	0A	09
16670	0E	0B	12	0F	0A	11
16676	0E	13	12	18	0A	1B
16682	0E	1D	12	21	0A	23
16688	0E	25	10	29	0A	2D
16694	0E	2F	12	33	0A	35
16700	0E	37	12	3B	0A	3D
16706	0E	3F	12	43	0A	45
16712	0E	47	12	4A	0A	4E
16718	15	13	15	3E	02	03
16724	04	00	01	05	06	07
16730	01	08	09	0A	01	0B
16736	0C	0D	02	0E	0F	10
16742	02	11	12	13	02	14
16748	15	16	03	17	18	19
16754	03	1A	1B	1C	03	1D
16760	1E	1F	04	20	21	22
16766	04	23	24	25	04	26
16772	27	28	05	10	28	00
16778	05	29	00	00	05	0E
16784	11	00	06	10	13	00
16790	06	29	00	00	06	11
16796	14	00	07	13	16	00
16802	07	29	00	00	07	14
16808	17	00	08	16	19	00
16814	08	29	00	00	08	17
16820	1A	00	09	19	1B	00
16826	09	1A	1C	00	09	1B
16832	1D	00	0A	1C	1F	00
16838	0A	2A	00	00	0A	1D
16844	20	00	0B	1F	22	00
16850	0B	2A	00	00	0B	20
16856	23	00	0C	22	25	00
16862	0C	2A	00	00	0C	23
16868	26	00	0D	25	28	00
16874	0D	2A	00	00	0D	0E
16880	26	00	0F	12	15	18
16886	1E	21	24	27	1B	1B

Fig. 1. Hex code.

Check all is in position by the following tests:

Type	Correct No on screen
PRINT PEEK 16527	201
PRINT PEEK 16699	0
PRINT PEEK 16624	1
PRINT PEEK 16889	39

If anything different turns up then type GOTO 9200 enter 16514 to the prompt and carefully check the screen against the print until you find the error.

Now SAVE your program, because if anything is still wrong, the following tests could destroy it.

Type RAND USR 16514 newline. The screen should be clear; pressing any key should produce a 0/0 report — if so, then it's OK.

Add lines:

```
3       REM
5       DIM C$(5)
10      DIM M$(21,79)
```

It is essential that lines 5 and 10 occupy these positions and in this order, else the machine code will be unable to find them when the time comes.
Temporarily type:

```
20      LET C$="IANU*"
30      LET X= USR 16528
```

RUN this, the screen will be blank until any of the four keys in C$ are pressed — even Break doesn't work! This provides the perfect INKEY$ function as no other code is required for checking keypress validity! Also X becomes the value (1 to 4) depending on the order in C$. Therefore you could type

```
20      LET C$="4321*" and X
```

This would return the value of 5-key, ie inverted values.

To check the next two sections you will need to type in all the code from line 9500 to 9720. Once you have done this, type

```
20      GOSUB 9500
30      LET C$="LRE*"
40      LET X= USR 16620
50      STOP
```

RUN this (after SAVEing) and, if all is OK, by pressing L and R the map should scroll from side to side. Press E when you get fed up to return to BASIC.
Finally to check the last section change and add the lines:

```
40      LET Y=INT(RND*42+1)
50      LET YI= PEEK(16637+Y*2-1)
60      LET XI= PEEK(16637+Y*2)
70      LET M$(YI,XI)="X"
80      LET C$="LRE*"
90      LET X=USR 16620
100     LET X=USR(16624)-1
```

RUN this, as before scroll the map back and forward until the room in which the inverse X appears is on the screen — press E.

Type Print X — a high number should appear (this may vary depending on how much BASIC has been entered). Typing POKE X,128 should produce an inverse square on the screen in the same place as the inverse X occupied previously.

Line	Function
5 to 167	Set up the game
170 to 320	The main game loop
330 to 480	End of game routines
500 to 530	A 'pause' subroutine
600 to 620	'Power left' routine
700 to 740	Position player subroutine
800 to 830	Jump from room 14-40 routine
900 to 990	Jump (move) under tunnels
1000 to 1020	Find and print monster/character
2000 to 2290	Map and movement
3000 to 3520	Print new room, character and monster attack routines
4000 to 4140	'Create wall' routine
5000 to 5150	'View' routine
6000 to 6220	Surrounding rooms print subroutine
7000 to 7190	Title and instructions
8000 to 8030	Scroll CLS routine
8500 to 8740	Wandering monsters subroutine
9200 to 9230	Assign beasties to rooms subroutine
9500 to 9720	Set up map in M$

Table 1. Explanations and functions of lines in Program 2.

BASIC

If all is well then enter the main program, Program 2. It may be wise to delete your existing lines in order to avoid confusion as you should no longer need them.

The only area which is likely to cause problems is the 'Map' section, the correct spacings and inverse characters must be used. The map diagram is for you to check your program with, adjust faulty lines until it is correct with Fig. 2. Note that if wrong, the machine code will still work OK, but your map will print in a disconnected, mixed-up way.

Playing the Game

You and the Sorcerer start in random rooms. You will be given clues as to what is lurking in adjacent rooms. To find out exactly what lies in wait, use the 'View' facility; this uses power, however. To move, use the Move option: you will be shown the map from the left side. Use keys L/R to scroll the map left or right to get your character (inverse X) onto the screen. Also position the map so that the room you wish to move to is on screen; once you are ready, press E. Now move your character along the tunnels using cursor keys (5,6,7 and 8).

You may be attacked along the way; if so, you must decide whether to use more of your precious staff power or to retreat. If you retreat you will be put back into the room you started from. When you reach a new room (or return to your starting room), the screen will clear and the details of the room will be printed.

When (and if) you locate the Sorcerer, you must chase him around — he will always escape if there is an exit — until he is in a room with only two tunnels (eg, 15, 18 etc). You can block his exit by creating a magic wall in one of the attached rooms, then approach him from the other side (he cannot get past you). However, sometimes the magic wall doesn't work and it all takes up precious power from your staff!

Emergency Cover

If you encounter any problems with getting the program to run, it is almost certainly caused by a slip or two whilst entering the data. Get someone esle to go over the whole thing for you. If you follow the instructions given here, it will work. You may think you've done it perfectly, but get it checked all the same.

If all else fails then you can write for assistance to Poster Programs No 3, ASP Ltd, 145 Charing Cross Road, London WC2H OEE. Please note that we cannot deal with *any* enquiries by telephone.
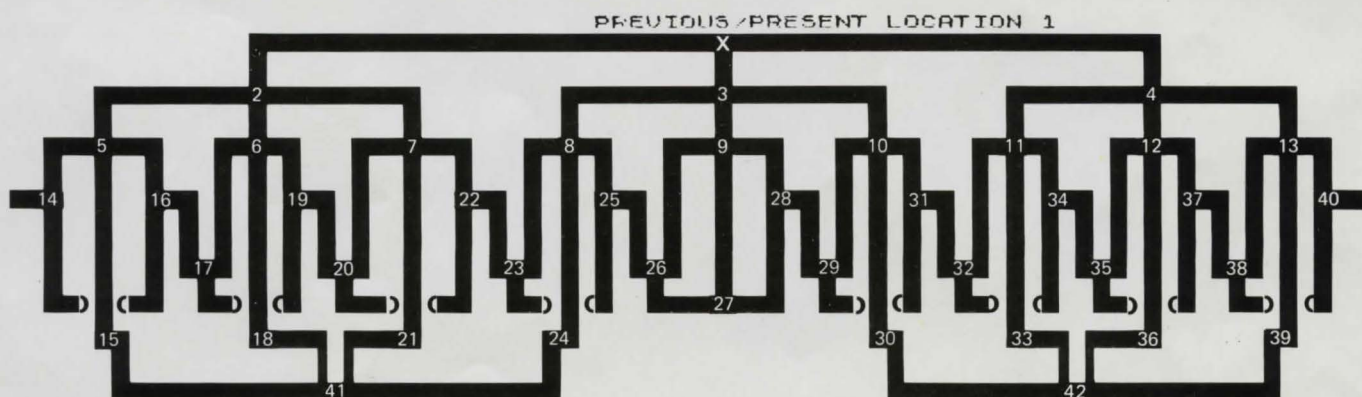

Fig. 2. The final map.

```
2 REM LN █ "???=C RUN LN █ █ E
(RND█ :█ COS ?Y*█ ?C FOR 7█ / NEXT
█ LN █ RNDY █ COS X█U █RND4█X RETURN
█ C GOSUB /█W RETURN LC NEW M█RN
DE£RND█ 6 █ FOR E(RND█ > █ █ "+█VA
L █ 4 GOSUB █<█J █ AT ( PAUSE /█Y
/USR█ CHR$ E£RNDY GOSUB █ STE
P ??TAN E.?.E█?T/P3█PN█VE?
█?█:█.█ ">?█") :<>/..1;5█7:9(D█H
:J>N█P:R>U█X:Z>█?█:?>?>?█?+<+Y█
██ "£$█ :?(█)>█<█ =+-█*/█ .█ .0
█123,456,789,ABC█(C█D█ L)█,█,<
█D █?█,█ <- █D █ -; █D █ *,
█*; █,0 █:.1 █03 █E █14 "36 "E
"47 £69 £E █ £7A $9C $E █ $:A ?>+/
258B......
 5 DIM C$(5)
 10 DIM M$(21,79)
 15 GOSUB 7130
 20 PRINT AT 10,0;"PLEASE WAIT
WHILE I SET UP GAME"
 25 LET N=42
 30 LET AT=3
 35 LET L=0
 40 DIM B(4)
 45 GOSUB 9500
 65 DIM A(N)
 70 FOR X=1 TO 10
 80 GOSUB 9200
 90 NEXT X
 100 FOR I=1 TO 3
 110 LET X=10
 115 GOSUB 9200
 120 NEXT I
 130 LET X=11
 135 GOSUB 9200
 140 LET X=0
 145 GOSUB 9200
 150 LET Y=RM
 152 GOSUB 700
 154 LET X=0
 155 GOSUB 9200
 160 LET C=RM
 165 LET M=500
 167 LET L=0
 170 LET W=0
 175 LET K=0
 179 GOSUB 6000
 180 PRINT ,,TAB 13;"CHOOSE",,,
█REATE WALL █ MOVE █ █IEW"
 190 LET C$="M/CV*"
 200 GOSUB 1000+1000*USR 16528
 240 IF A(Y)=0 OR K=1 OR A(Y)=10
OR A(Y)=11 OR W=1 THEN GOTO 280
 250 PRINT ,,"THE ";
 253 LET Z=Y
 255 GOSUB 1000
 257 PRINT "WAKES UP... █ █ND ATT
█CK......"
 260 GOTO 390
 280 IF M>0 THEN GOTO 320
 290 PRINT ,,"YOUR STAFF IS NOW
USELESS","AND THE EVIL FORCE ATT
ACKS"
 300 GOTO 390
 320 IF W=0 THEN GOTO 170
 330 PRINT AT 5,7;"CONGRATULATIO
NS."
 340 PRINT ,," YOU HAVE DEFEATE
D THE EVIL",," SORCERER,WOULD
YOU LIKE TO",," TRY TO TRAP AN
OTHER ONE ?"
 345 PRINT ,,,,TAB 8;"█RE█S █ █R
█N..."
 350 LET C$="YN*"
 360 IF USR 16528=2 THEN STOP
 370 LET M$(YI,XI)=CHR$ U
 380 GOTO 60
 390 PRINT ,,"OH DEAR,YOU APPEAR
TO BE DEAD. DO YOU WANT TO BE
█E█N█R█N█T█D ?"
 400 LET C$="YN*"
 410 IF USR 16528=2 THEN STOP
 420 PRINT ,,"WITH THE SAME SORC
ERER ?"
 425 IF INKEY$<>"" THEN GOTO 425
 430 IF USR 16528=2 THEN GOTO 37
@
 440 LET X=0
 450 GOSUB 9200
 460 LET Y=RM
 465 LET M$(YI,XI)=CHR$ U
 470 GOSUB 700
 475 CLS
 480 GOTO 165
 500 FOR I=1 TO 50
 510 NEXT I
 530 RETURN
 600 LET M=M-R
 610 PRINT ,,"YOU HAVE USED ";R;
" UNITS.","YOU HAVE ";M;" UNITS
LEFT."
```

```
 620 GOTO 500
 700 LET YI=PEEK (16637+Y*2-1)
 710 LET XI=PEEK (16637+Y*2)
 720 LET U=CODE M$(YI,XI)
 730 LET M$(YI,XI)="█"
 740 RETURN
 800 LET M$(YI,XI)=CHR$ U
 810 LET XI=(XI=79)+(79 AND XI=1
)
 820 LET M$(YI,XI)="█"
 830 GOTO 2000
 900 IF (Q=16 AND PEEK (Z-1)=189
) OR (Q=17 AND PEEK (Z+1)=189) T
HEN GOTO 2120
 905 LET FL=0
 910 FOR E=Z-(3 AND A=1) TO Z+(3
AND A=4)
 915 IF PEEK E=118 THEN LET FL=1
 920 NEXT E
 925 LET M$(YI,XI)=CHR$ U
 930 LET XI=XI+4*((Q=17)-(Q=16))
 940 LET Z=Z+3*((Q=17)-(Q=16))
 950 IF FL=0 THEN POKE Z,CODE "█
"
 960 POKE P,U
 970 LET P=Z
 980 LET M$(YI,XI)="█"
 985 IF FL=1 THEN GOTO 2005
 990 GOTO 2120
 1000 PRINT ("RED DRAGON" AND A(Z
)=1)+("GREEN DRAGON" AND A(Z)=2)
+("YELLOW DRAGON" AND A(Z)=3)+("
PLATINUM SERPENT" AND A(Z)=4)+("
GOLD SERPENT" AND A(Z)=5)+("SILV
ER SERPENT" AND A(Z)=6)+("DWARF
WITH A SABRE" AND A(Z)=7)+("DWAR
F WITH A SWORD" AND A(Z)=8)+("DW
ARF WITH A KNIFE" AND A(Z)=9)+("
FRIENDLY GNOME" AND A(Z)=10)+("M
AGIC SPOT" AND A(Z)=11)
 1010 LET S=VAL "30252028231824419
140000"(1+(A(Z)-1)*2 TO A(Z)*2)
 1020 RETURN
 2000 CLS
 2005 LET C$="LRE*"
 2010 POKE 16418,0
 2015 PRINT AT 0,0;" PREVIOUS/PR
ESENT LOCATION ";Y
 2020 PRINT AT 23,0;"L OR R TO MO
VE MAP:E TO CONTINUE"
 2030 LET MP=USR 16620
 2050 LET P=(USR 16624)-1
 2060 IF P<>-1 THEN GOTO 2100
 2070 PRINT AT 23,0;"YOU ARE NOT
ON SCREEN :MOVE MAP."
 2080 GOSUB 500
 2090 GOTO 2020
 2100 LET C$="5678*"
 2110 PRINT AT 23,0;"USE KEYS 5,6
,7 AND 8 TO MOVE MAN"
 2120 LET A=(USR 16528)
 2130 LET Z=P+(A=4)-(A=1)+33*((A=
2)-(A=3))
 2135 LET Q=PEEK Z
 2140 IF YI=10 AND (XI=1 OR XI=79
) AND Q=118 THEN GOTO 800
 2145 IF Q=16 OR Q=17 THEN GOTO 9
00
 2150 IF Q=0 OR Q=118 OR (Q=5 AND
PEEK (Z+1)=189) OR (Q=133 AND P
EEK (Z-1)=189) THEN GOTO 2120
 2155 LET D=U
 2160 POKE P,U
 2170 LET M$(YI,XI)=CHR$ U
 2180 LET U=Q
 2190 LET P=Z
 2200 POKE P,CODE "█"
 2210 LET YI=YI+(A=2)-(A=3)
 2220 LET XI=XI+(A=4)-(A=1)
 2230 LET M$(YI,XI)="█"
 2235 IF RND>.93 AND U=128 THEN G
OTO 6500
 2240 IF (U>155 AND D>155) OR U<1
56 THEN GOTO 2120
 2250 LET Y$=""
 2260 IF CODE M$(YI,XI-1)<156 THE
N GOTO 2270
 2265 LET Y$=Y$+CHR$ (CODE M$(YI,
XI-1)-128)
 2270 LET Y$=Y$+CHR$ (U-128)
 2275 IF CODE M$(YI,XI+1)<156 THE
N GOTO 2285
 2280 LET Y$=Y$+CHR$ (CODE M$(YI,
XI+1)-128)
 2285 LET P=VAL Y$
 2290 CLS
 2300 POKE 16418,2
 3000 IF C<>P THEN GOTO 3180
 3010 LET W=1
 3020 GOSUB 3470
 3030 IF F=0 THEN GOTO 3080
 3040 LET U=0
 3045 LET X=0
```

```
 3050 GOSUB 9200
 3060 LET C=RM
 3070 GOTO 3160
 3080 FOR I=1 TO 4
 3090 LET T=PEEK (
)
 3100 IF T=0 OR T=
THEN GOTO 3120
 3103 IF A(T)=10 T
 3105 LET C=T
 3110 LET W=0
 3113 GOSUB 3470
 3115 IF F=1 THEN
 3120 NEXT I
 3140 IF W=1 THEN
 3150 PRINT "THE S
OFF."
 3155 GOTO 3180
 3160 PRINT "THE S
THE MAGIC SPOT.
 3180 LET Y=P
 3185 IF A(Y)=0 TH
 3190 GOSUB 6000
 3195 IF A(Y)<>11
 3200 PRINT "YOU H
N ON THE MAGIC
 3205 LET X=0
 3210 GOSUB 9200
 3215 LET Y=RM
 3220 LET M$(YI,XI
 3225 GOSUB 700
 3227 RETURN
 3230 IF A(Y)<>10
 3240 LET R=INT (A
 3250 PRINT ,,"THE
L YOU WHERE THE
R ";R;" GOLD","CO
?"
 3255 LET B=0
 3260 LET C$="YN*
 3270 IF USR 16528
 3280 PRINT ,,"HE
:C;"..."
 3290 GOTO 3450
 3300 LET K=0
 3303 LET Z=Y
 3305 PRINT ,,"THE
 3307 GOSUB 1000
 3310 PRINT "IS AB
,,"YOU HAVE 3 CHO
█TUN IT",,TAB 9;
,TAB 9;"█ESTROY I
 3320 PRINT ,,TAB
D"
 3330 LET C$="STD*
 3340 LET A=USR 16
 3350 PRINT AT 21,
GIC TO "+("STUN"
SPORT" AND A=2)+(
 3370 INPUT R
 3375 IF R<=0 OR R
70
 3380 CLS
 3385 PRINT "THE "
 3390 GOSUB 1000
 3395 PRINT "IS ";
 3397 LET B=0
 3400 LET Q=RND
 3405 IF A=1 AND (
PRINT "█TUNNED"
 3410 IF A=1 AND (
LET K=1
 3415 IF A<>2 OR (
GOTO 3430
 3420 PRINT "█RANS█
 3423 LET X=A(Y)
 3425 LET A(Y)=0
 3427 GOSUB 9200
 3430 LET Q=RND
 3433 IF A=3 AND (
PRINT "█E█T██S█
 3435 IF A=3 AND (
LET A(Y)=0
 3440 IF K=0 AND A
NT "ONLY DAZED."
 3445 IF K=0 AND A
B=INT (RND*8+1)
 3450 GOSUB 600
 3455 IF B>2 AND M
00
 3460 RETURN
 3470 LET F=0
 3480 FOR J=1 TO 4
 3490 LET T=PEEK (
)
 3495 IF T<1 THEN
 3500 IF A(T)=11 T
 3510 NEXT J
 3520 RETURN
 4000 CLS
 4010 PRINT "WHICH
WISH TO CREAT
L IN ?"
```

Left column (cut off):

```
4
(16721+(C*4-4+I)

=Y OR T=L OR T=P

THEN GOTO 3120

GOTO 3040

RETURN
SORCERER HAS RUN

SORCERER TROD ON
",,,,

HEN RETURN

THEN GOTO 3230
HAVE JUST TRODDE
C SPOT.",,,,

I)=CHR$ U

THEN GOTO 3300
RND*20)+20
E GNOME WILL TEL
SORCERER IS FO
OINS.... Y OR N

6=2 THEN RETURN
IS IN CHAMBER "

E ";

BOUT TO ATTACK",
OICES:",,,TAB 9;
;"TRANSPORT IT",
IT"
8;"PRESS S,T OR
*"
6528
,0;"AMOUNT OF MA
AND A=1)+("TRAN
("KILL" AND A=3)

R>M THEN GOTO 33

";

(R>S+Q*S/3) THEN

(R>S+Q*S/3) THEN

(R<S+RND*S) THEN

SFORTED"

(R>S*4+Q*S) THEN

(R>S*4+Q*S) THEN

A(Y)<>0 THEN PRI

A(Y)<>0 THEN LET

M>0 THEN GOTO 33

4
(16721+(C*4-4+J)

GOTO 3510
THEN LET F=1

H CHAMBER DO YOU
TE THE MAGIC WAL
```

Middle column:

```
4020 INPUT L
4030 IF L<1 OR L>N THEN GOTO 402
     0
4040 IF A(L)<>0 THEN GOTO 4080
4050 PRINT ,,"THE MAGIC WALL NOW
      EXISTS IN    CHAMBER ";L
4060 GOTO 4110
4080 PRINT ,,"          ...CHAMBER
     ";L;" ALREADY","CONTAINS MAGIC,
     THE WALL FAILS."
4090 LET L=0
4110 PRINT
4120 LET R=INT (RND*21+20)
4130 GOSUB 600
4140 RETURN
5000 PRINT ,,"WHICH CHAMBER TO V
     IEW ?"
5005 INPUT P
5010 IF P>0 AND P<N THEN GOTO 50
     30
5015 GOSUB 9200
5020 GOTO 5005
5030 LET F=0
5035 FOR I=1 TO 4
5040 IF B(I)=P THEN LET F=1
5050 NEXT I
5060 IF F=0 THEN PRINT ,,"YOU MA
     Y ONLY VIEW ADJACENT","CHAMBERS.
     "
5063 IF F=0 THEN GOTO 5005
5065 GOSUB 500
5067 CLS
5070 IF P=C THEN PRINT "YOU HAVE
      FOUND THE SORCERER"
5080 IF A(P)=0 AND P=C THEN GOTO
     5130
5090 IF A(P)=0 THEN PRINT "THE C
     HAMBER IS EMPTY"
5095 IF A(P)=0 THEN GOTO 5130
5100 PRINT "THERE IS A ";
5110 LET Z=P
5115 GOSUB 1000
5120 PRINT "...IN CHAMBER ";P;"."
5130 LET R=INT (RND+21+10)
5140 GOSUB 600
5150 RETURN
6000 LET F=0
6010 FOR I=1 TO 4
6020 LET B(I)=PEEK (16721+(Y*4-4
     +I))
6025 IF B(I)=0 THEN GOTO 6035
6030 LET F=F+A(B(I))
6035 IF B(I)=C THEN LET F=F-1000
6040 NEXT I
6045 CLS
6050 IF F=0 THEN GOTO 6160
6060 PRINT "BEWARE......"
6070 IF F<0 THEN PRINT "THE EVIL
     ICE IS HERE"
6080 FOR I=1 TO 4
6083 IF B(I)=0 THEN GOTO 6150
6090 LET T=A(B(I))
6095 IF T<=0 OR T>11 THEN GOTO 6
     150
6100 PRINT "I CAN HEAR ";
6110 IF T>0 AND T<4 THEN PRINT "
     A SCREECH"
6120 IF T>3 AND T<7 THEN PRINT "
     A CREATURE HISSING"
6130 IF T>6 AND T<11 THEN PRINT
     "MONEY RATTLING"
6140 IF T=11 THEN PRINT "MAGICAL
      MUSIC"
6150 NEXT I
6160 PRINT ,,"YOU ARE IN CHAMBER
     ";Y
6162 IF A(Y)=0 THEN GOTO 6170
6163 PRINT "THERE IS A ";
6164 LET Z=Y
6165 GOSUB 1000
6170 PRINT ,,"TUNNELS LEAD TO: ";
6180 FOR I=1 TO 4
6190 IF B(I)>0 THEN PRINT B(I);"
     ,";
6200 NEXT I
6210 PRINT
6220 RETURN
7130 PRINT AT 0,9;"SORCERER'S LAI
     R"
7140 PRINT ,," YOUR TASK IS TO T
     RAP THE EVIL",,,"SORCERER AND RE
     TURN THE MAGIC",,,"CHALICE."
7150 PRINT ,,,," YOUR ONLY PROTE
     CTION IS YOUR","MAGIC STAFF WH
     ICH HAS 500 UNITS","OF POWER,U
     SE IT WISELY TO DEFEAT",,,"THE HA
     ZARDS OF THE SORCERERS","LAIR"
7160 PRINT AT 21,4;"PRESS THE KEY
     M TO CONTINUE"
7170 IF CODE INKEY$<>118 THEN GO
     TO 7170
7180 GOSUB 8000
7190 RETURN
```

Right column:

```
7999 STOP
8000 FOR I=0 TO 21
8005 PRINT AT 21,31;
8010 SCROLL
8020 NEXT I
8030 RETURN
8500 LET R=INT (RND*10+1)
8510 LET A$="              A "+("BIG BAT" AND
     R=1)+("LARGE SNAKE" AND R=2)+("P
     OISONOUS SPIDER" AND R=3)+("VICI
     OUS RAT" AND R=4)
8520 LET A$=A$+("VAMPIRE BAT" AN
     D R=5)+("DEADLY SCORPION" AND R=
     6)+("HISSING COBRA" AND R=7)+("T
     ARANTULA" AND R=8)+("SWARM OF KI
     LLER BEES" AND R=9)+("PACK OF RA
     TS" AND R=10)
8530 LET A$=A$+" BAR"+("S" AND R
     <9)+" THE WAY,KEY M TO USE MAGIC
     ,R TO RETREAT "
8540 PRINT AT 23,0;A$( TO 32)
8550 IF LEN A$=32 THEN GOTO 8580
8560 LET A$=A$(2 TO )
8570 GOTO 8540
8580 LET C$="RM*"
8590 IF USR 16528=2 THEN GOTO 86
     30
8600 LET M$(Y1,X1)=CHR$ U
8610 GOSUB 700
8620 GOTO 2005
8630 LET R=INT (RND*(R*2)+1)
8640 PRINT AT 23,0;"YOU USED ";R
     ;" UNITS OF POWER.."
8650 LET M=M-R
8655 GOSUB 500
8660 IF M<=0 THEN CLS
8670 IF M<=0 THEN GOTO 290
8680 IF RND>.7 THEN GOTO 8720
8690 PRINT AT 23,0;"THE MAGIC WO
     RKED, YOU MAY PASS."
8700 GOSUB 500
8710 GOTO 2100
8720 PRINT AT 23,0;"IT FAILS,THE
      CREATURE ADVANCES.."
8730 GOSUB 500
8740 GOTO 8540
9200 LET RM=INT (RND*42+1)
9210 IF A(RM)>0 OR RM=L THEN GOT
     O 9200
9220 LET A(RM)=X
9230 RETURN
9500 LET M$(1,15 TO )="          "
9510 LET M$(2,15 TO )="          "
9520 LET M$(3)=M$(2)
9530 LET M$(4)="          "
9540 LET M$(5)="          "
9550 LET M$(6)=M$(5)
9560 LET M$(7)="          "
9570 LET M$(8)="          "
9580 LET M$(9)=M$(8)
9590 LET M$(10)="          "
9600 LET M$(11)="          "
9610 LET M$(12)=M$(11)
9620 LET M$(13)=M$(11)
9630 LET M$(14)="          "
9640 LET M$(15)="          "
9650 LET M$(16)="          "
9660 LET M$(17)="          "
9670 LET M$(18)="          "
9680 LET M$(19)="          "
9690 LET M$(20)=M$(19)
9700 LET M$(21)="          "
9720 RETURN
```
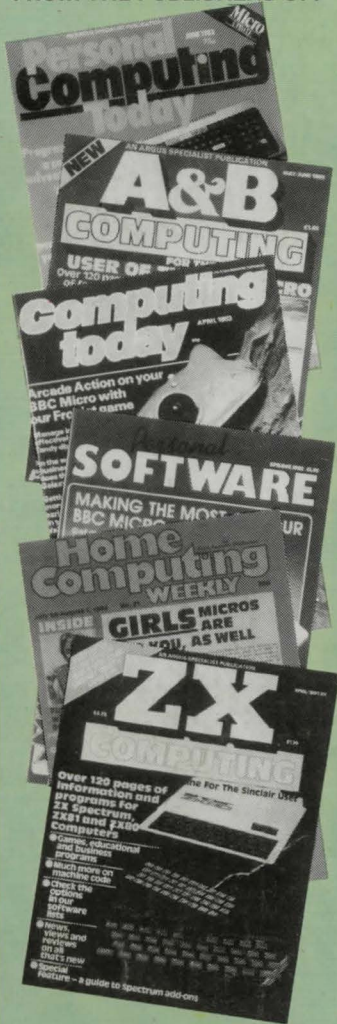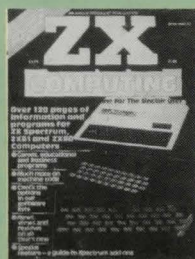
Sorcerer's Lair

Sorcerer's Lair is not a game to be entered upon lightly — danger and temptation lurk everywhere in the chambers and tunnels in the underground home of Zabad the Sorcerer.

Your quest is to locate and recover the stolen Chalice of Power . . . Armed only with your wits and your magic staff you must search the chambers and tunnels: peek into each room before you enter or you might come face to face with a fierce dragon or be attacked by an armed dwarf! If you're lucky you may encounter a friendly gnome who can be bribed with gold to tell you where the Sorcerer and Chalice are. All of your encounters are bound to cost you power from your staff.

Assuming you manage to find the Sorcerer, you must try to trap him by building magic walls in adjoining rooms — he can't get past you but he may penetrate the wall and escape . . .

Sorcerer's Lair is an exciting and absorbing graphics/adventure game for the 16K ZX81 (RAMpack needed) and is written in both BASIC and machine code. Full details on how to enter and run the program are given inside — even a simple-to-use machine code loader is included! The program itself has been exhaustively tried and tested to ensure that you will have little difficulty with the listing, and the game is carefully balanced to guarantee an exciting challenge to the player.

This is not a game that can be played and won in a matter of minutes — so if you have ever dreamed of being the hero or heroine who takes on the forces of evil in order to save the world, this could be just the trial run you've been looking for!