

Figures:

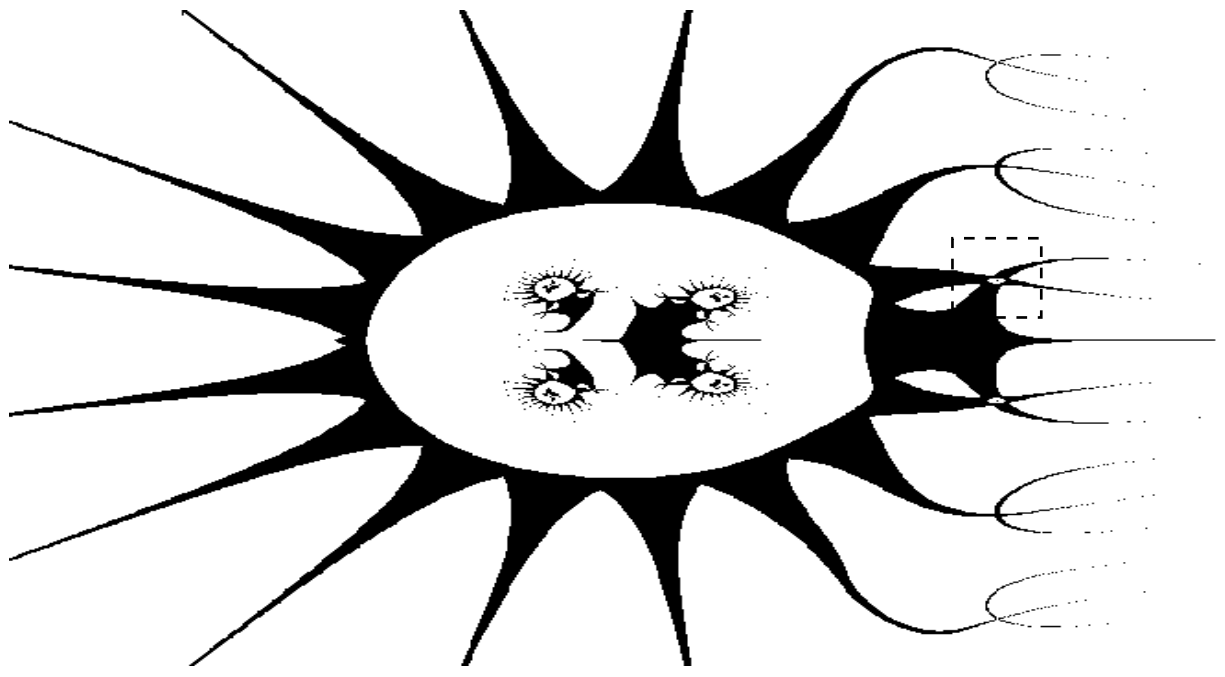


Figure 1

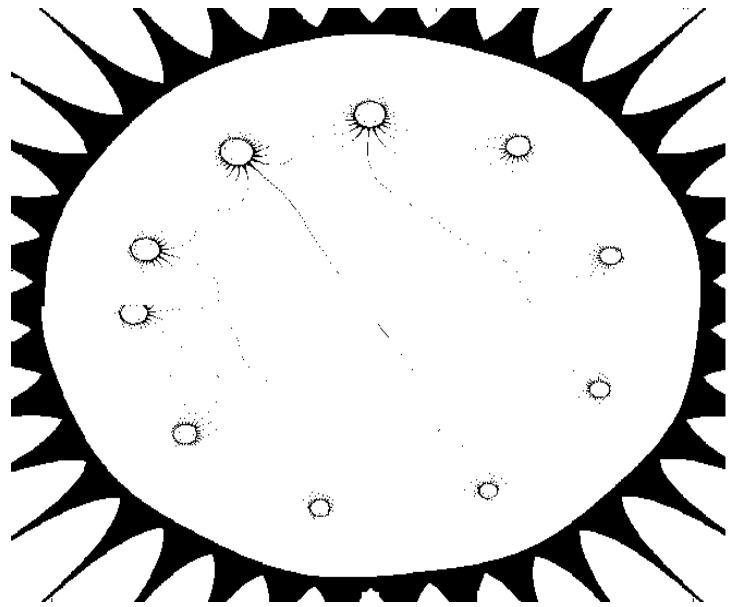


Figure 2

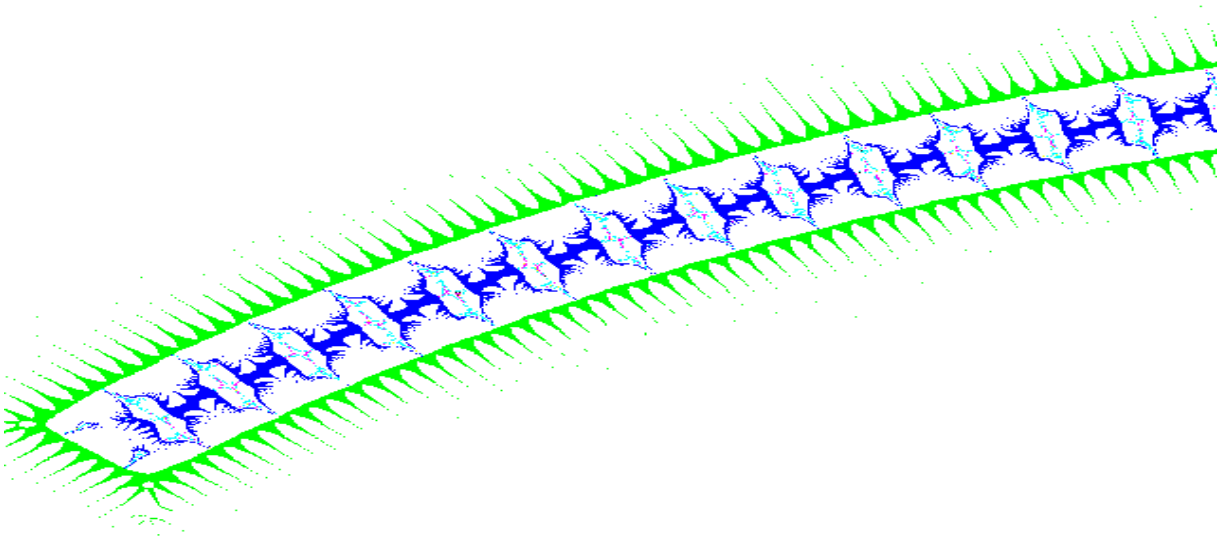


Figure 3

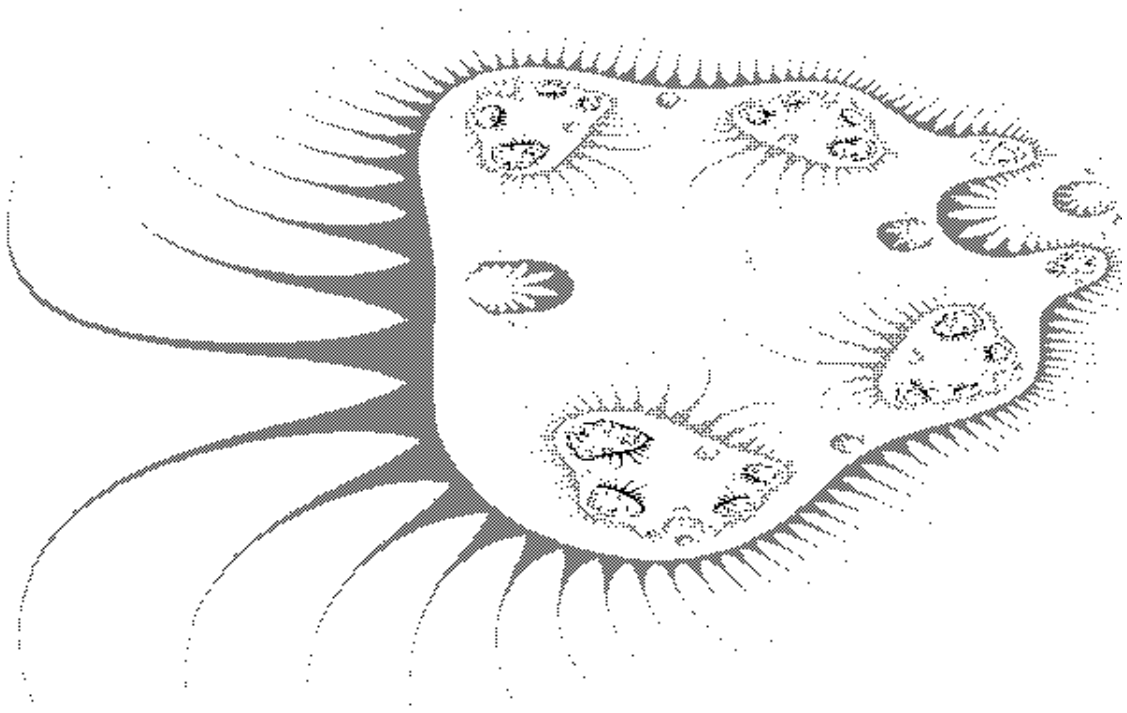


Figure 4

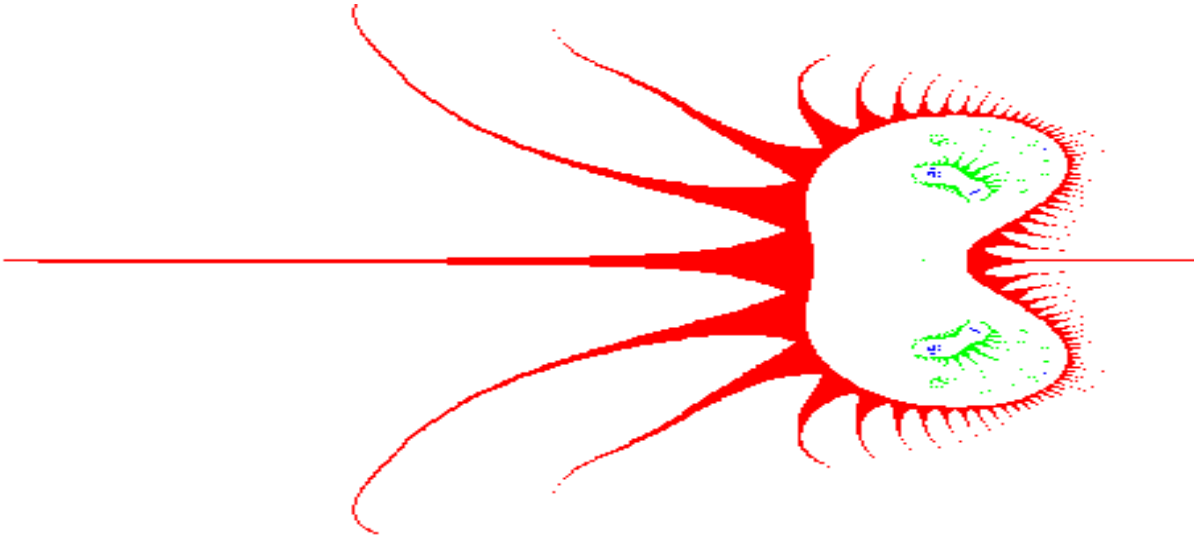


Figure 5

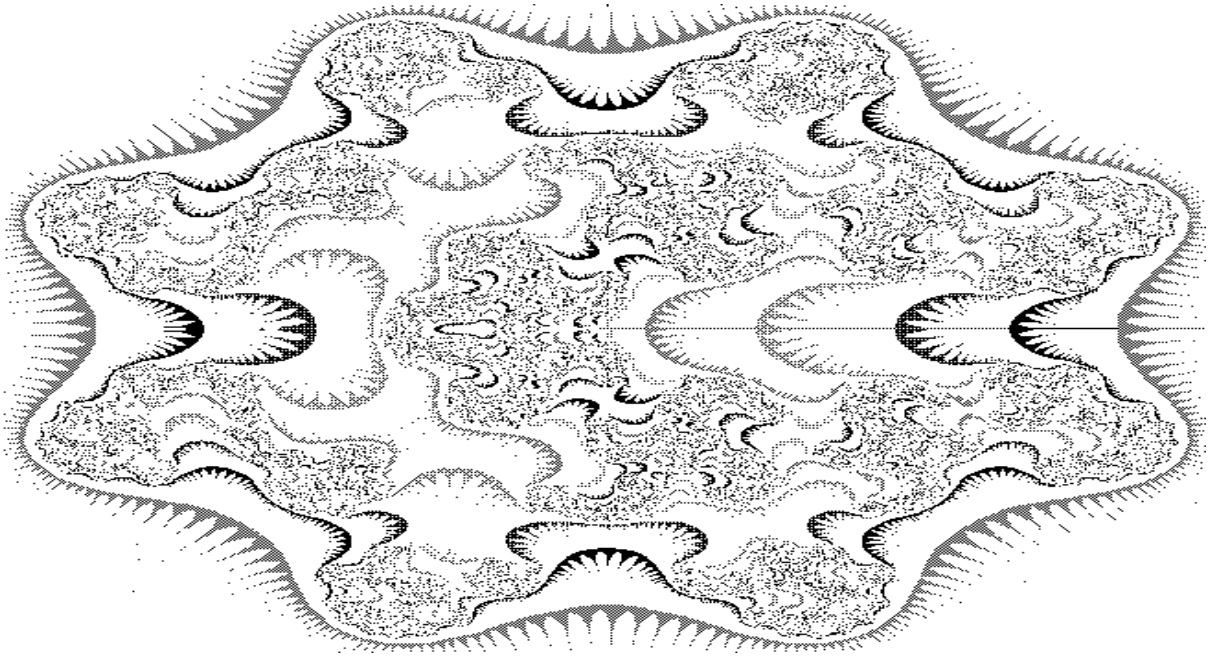


Figure 6

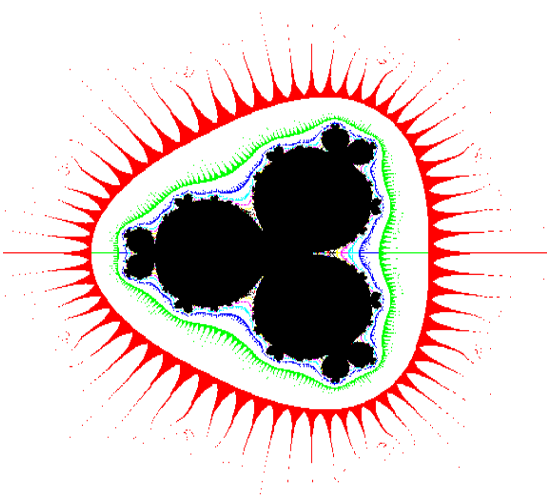


Figure 7

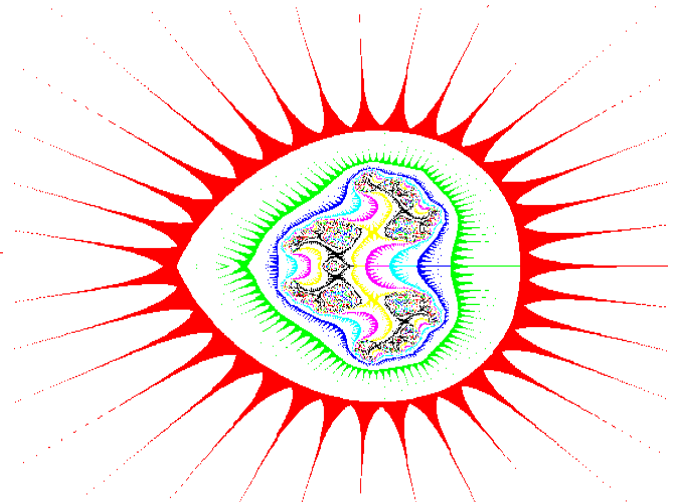


Figure 8



Figure 9

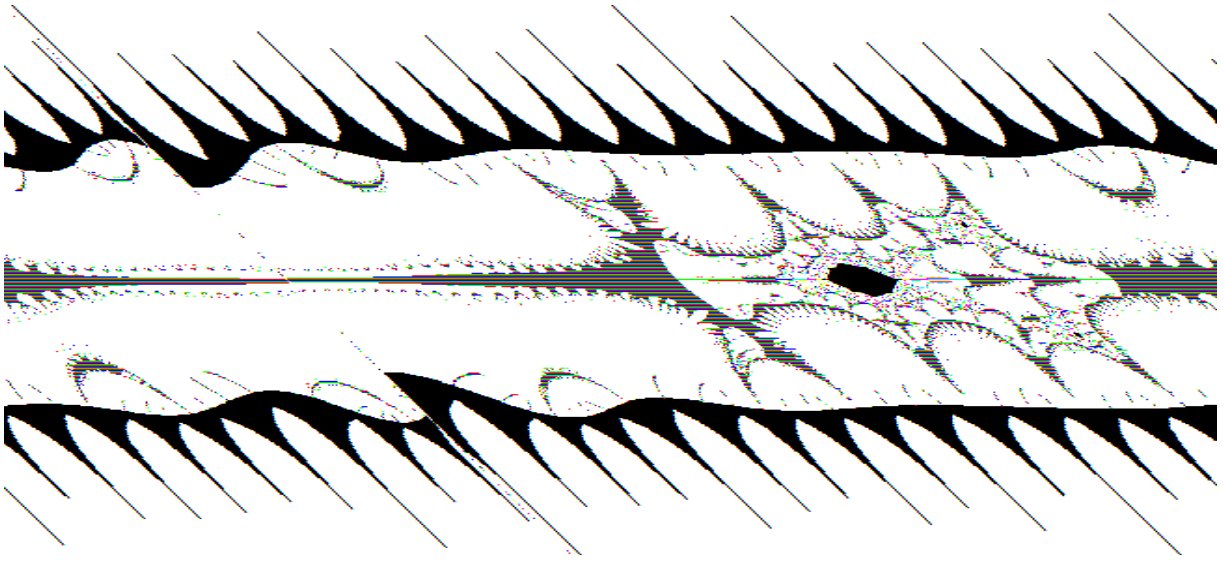


Figure 10

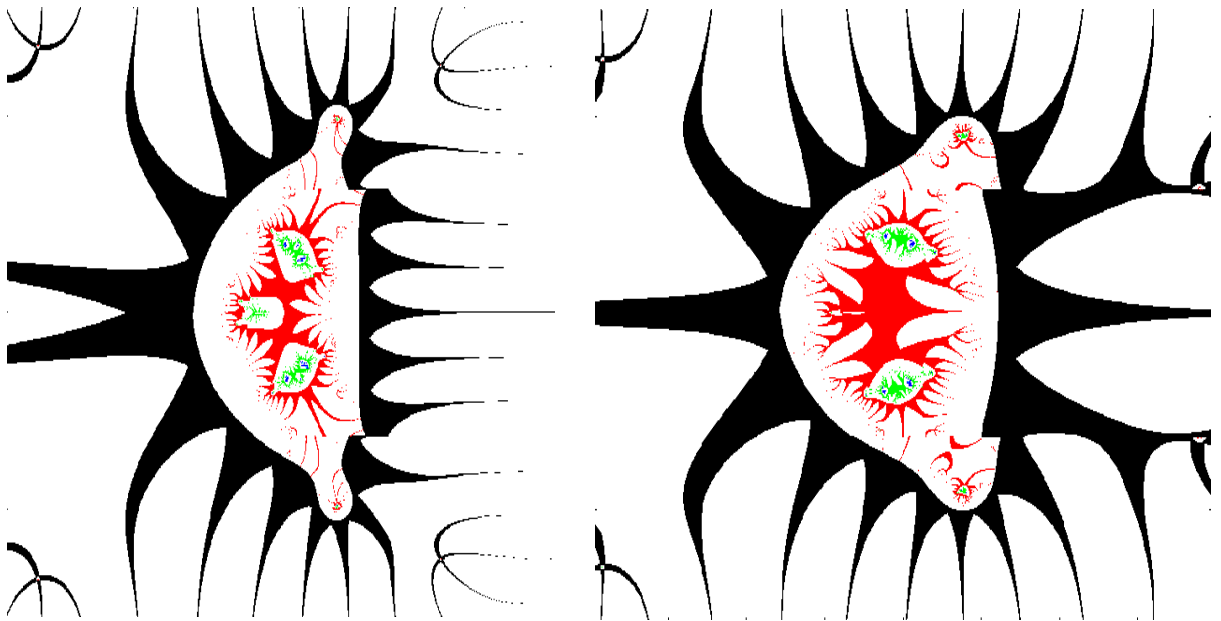


Figure 11

Figure 12

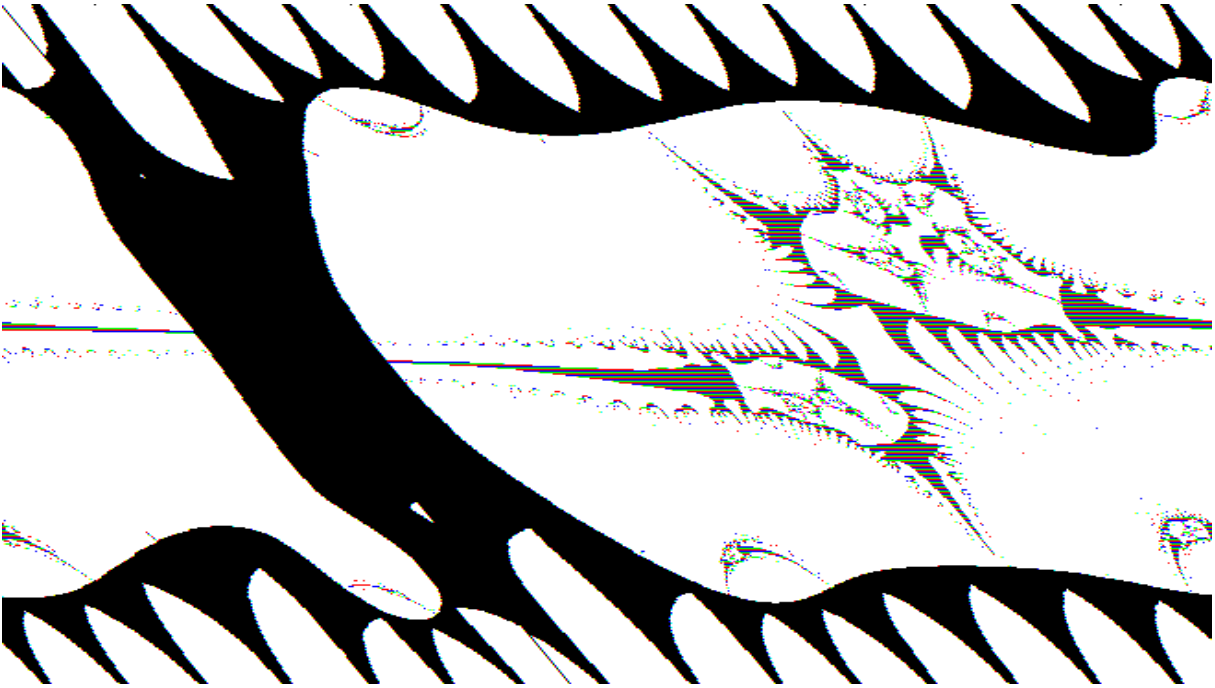


Figure 13

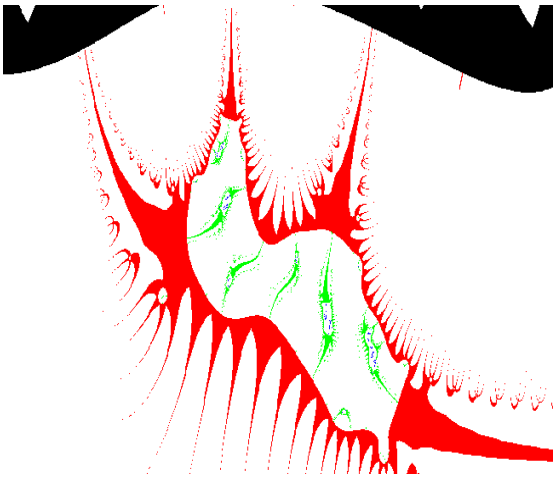


Figure 14

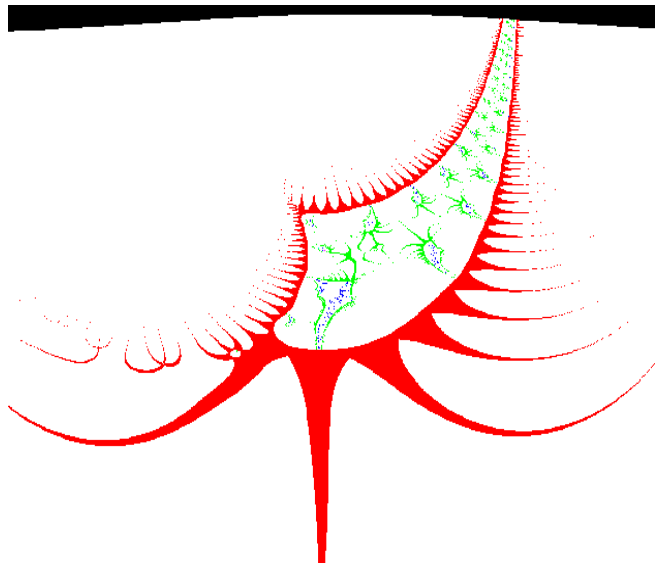


Figure 15

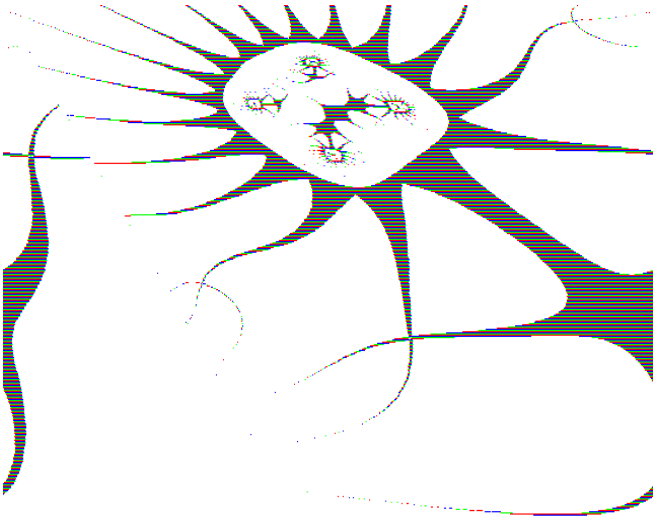


Figure 16

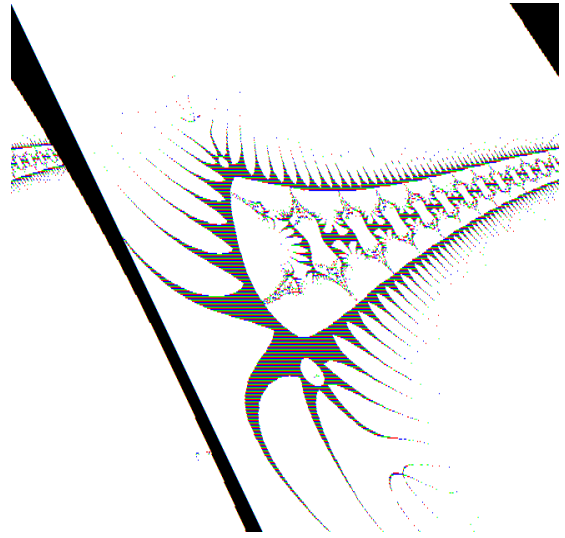


Figure 17

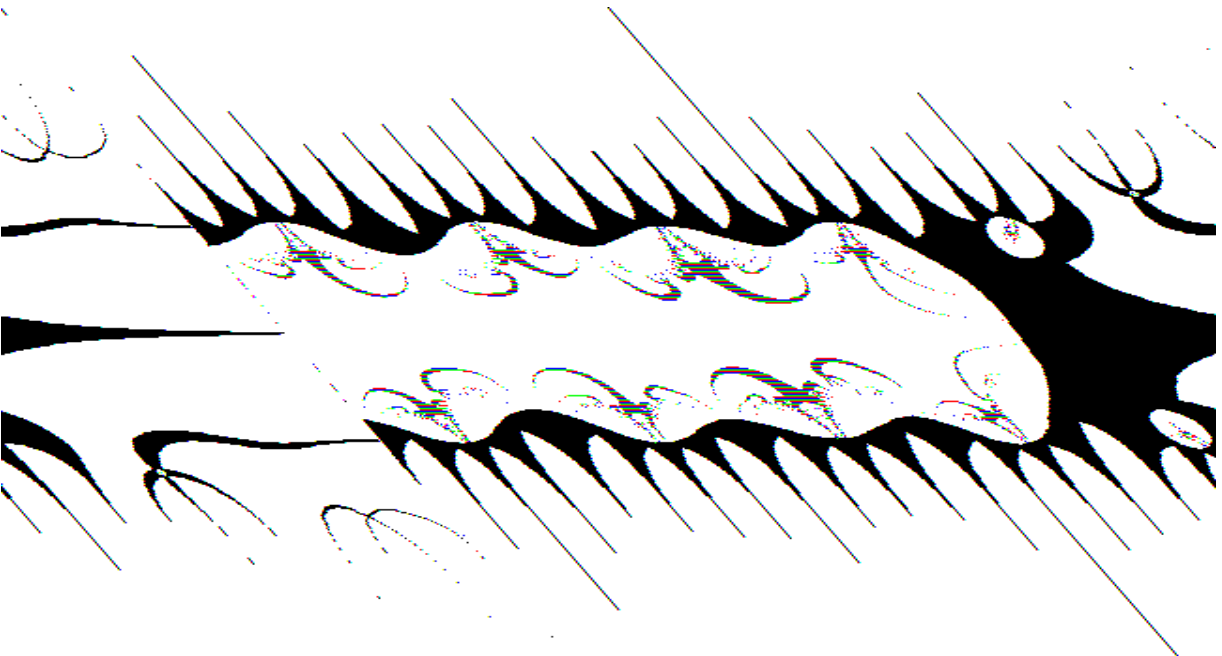


Figure 18

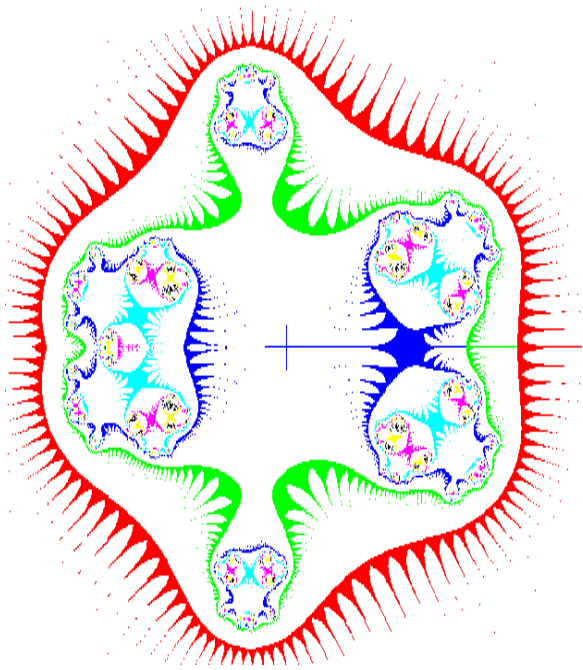


Figure 19

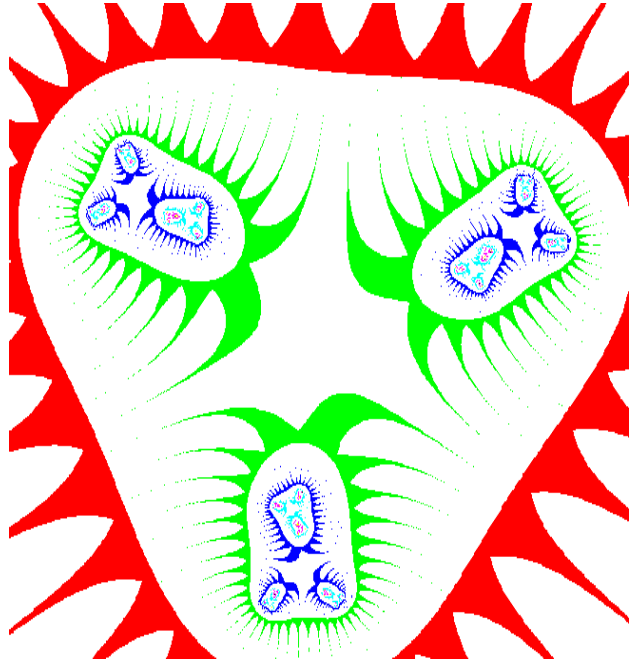


Figure 20

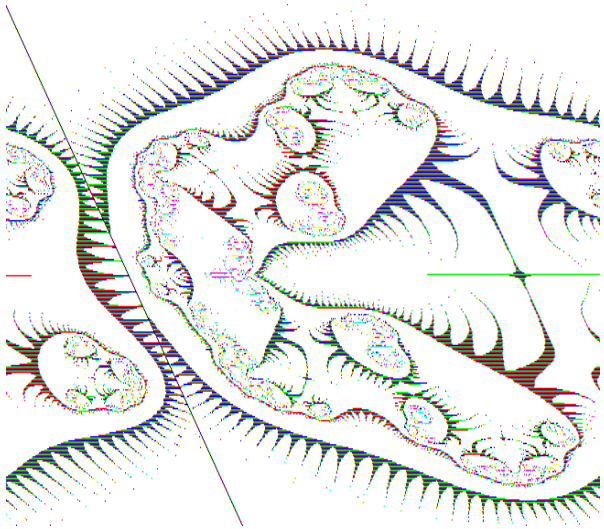


Figure 21

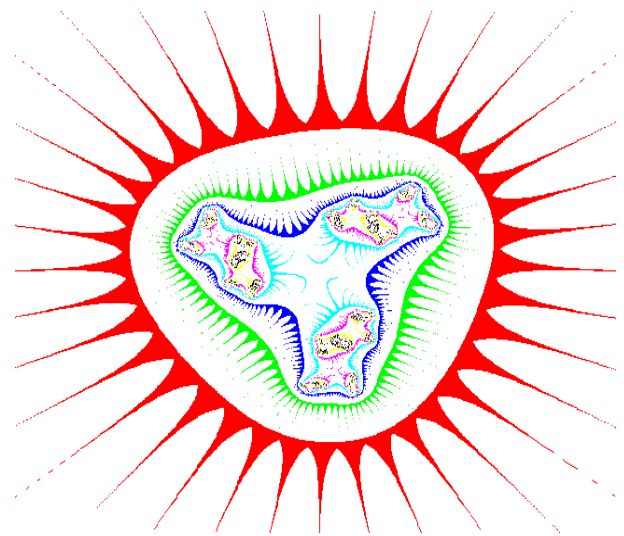


Figure 22



Figure 23

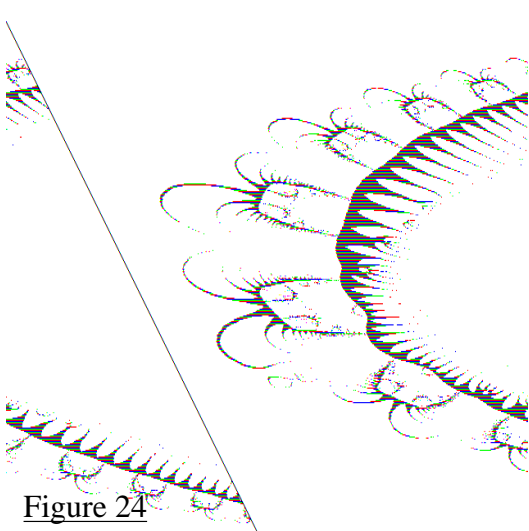


Figure 24

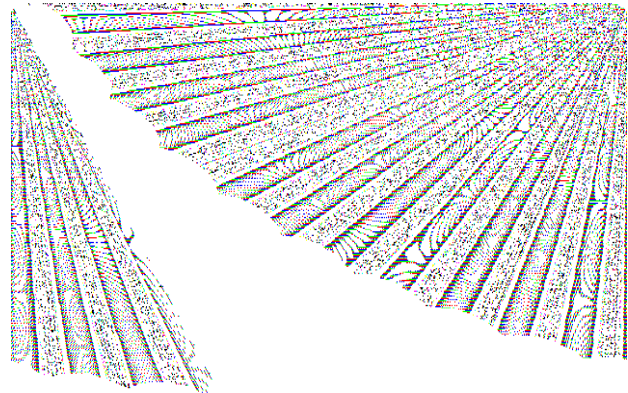


Figure 25

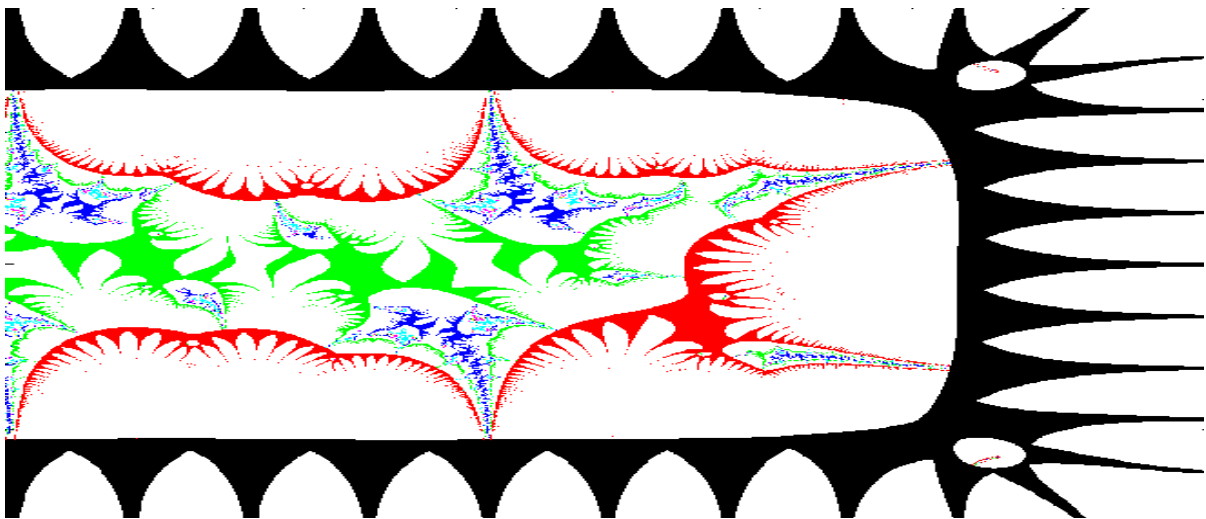


Figure 26

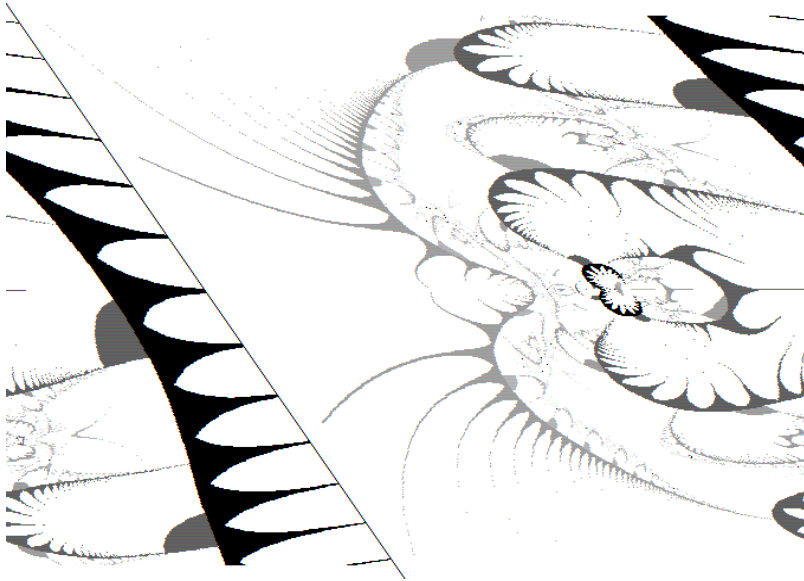


Figure 27

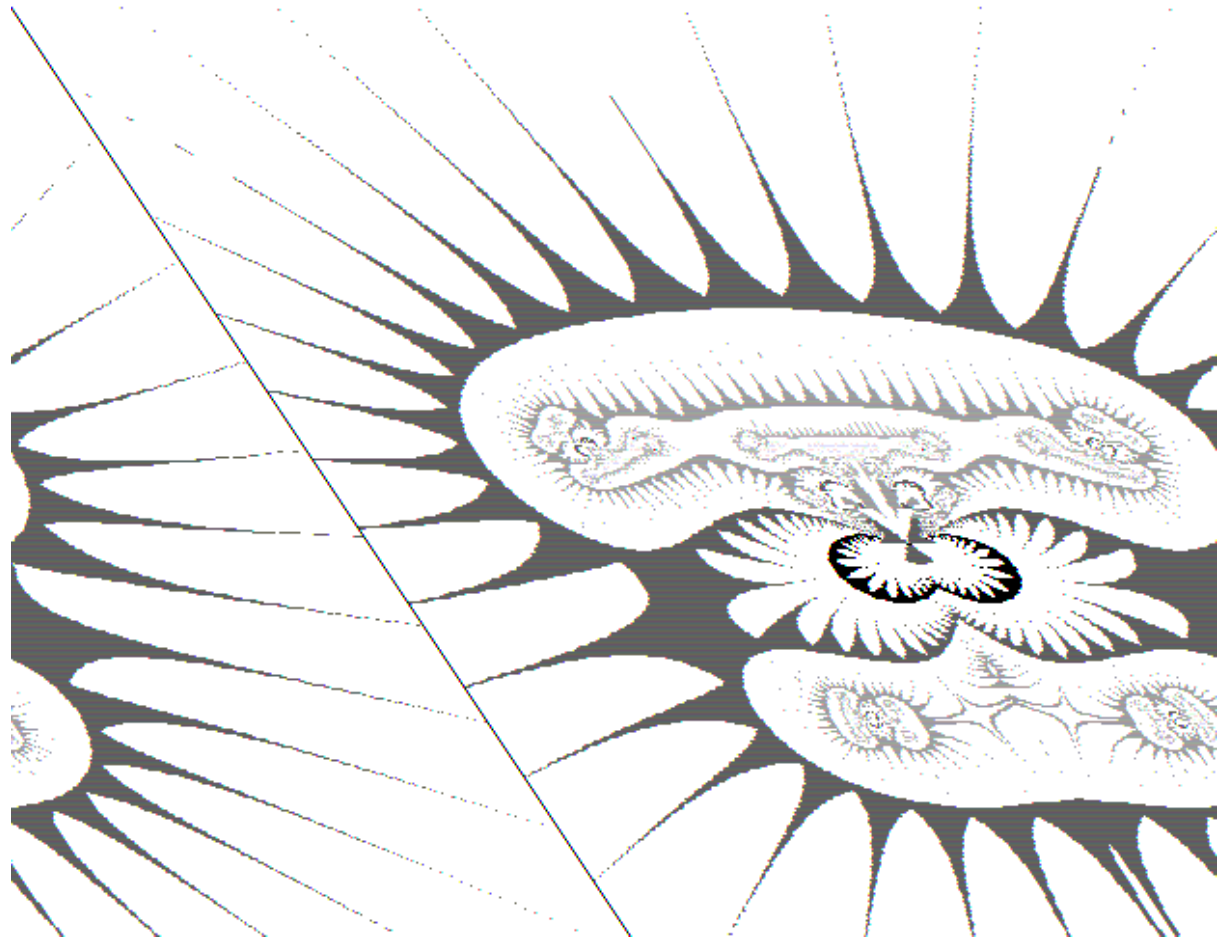


Figure 28

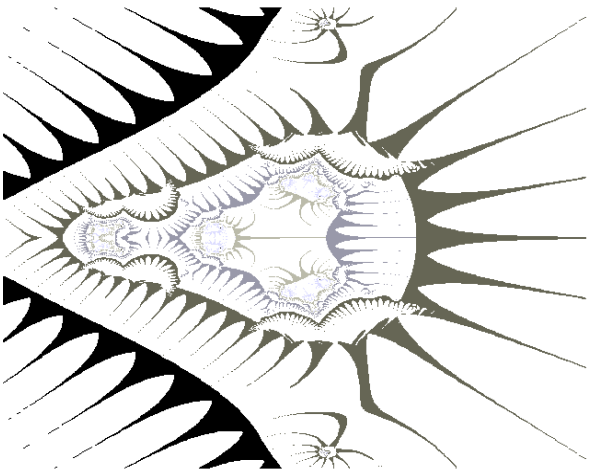


Figure 29

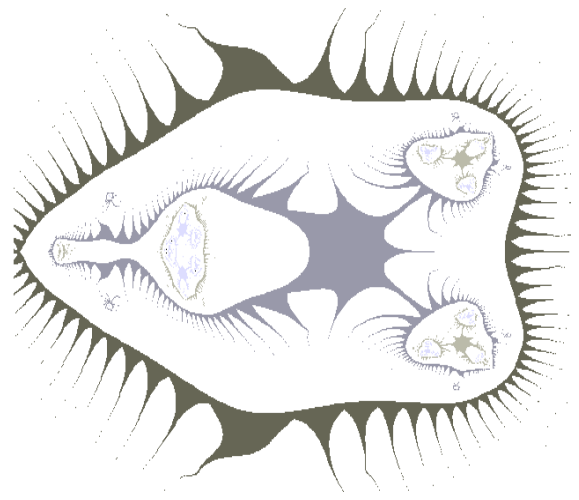


Figure 30

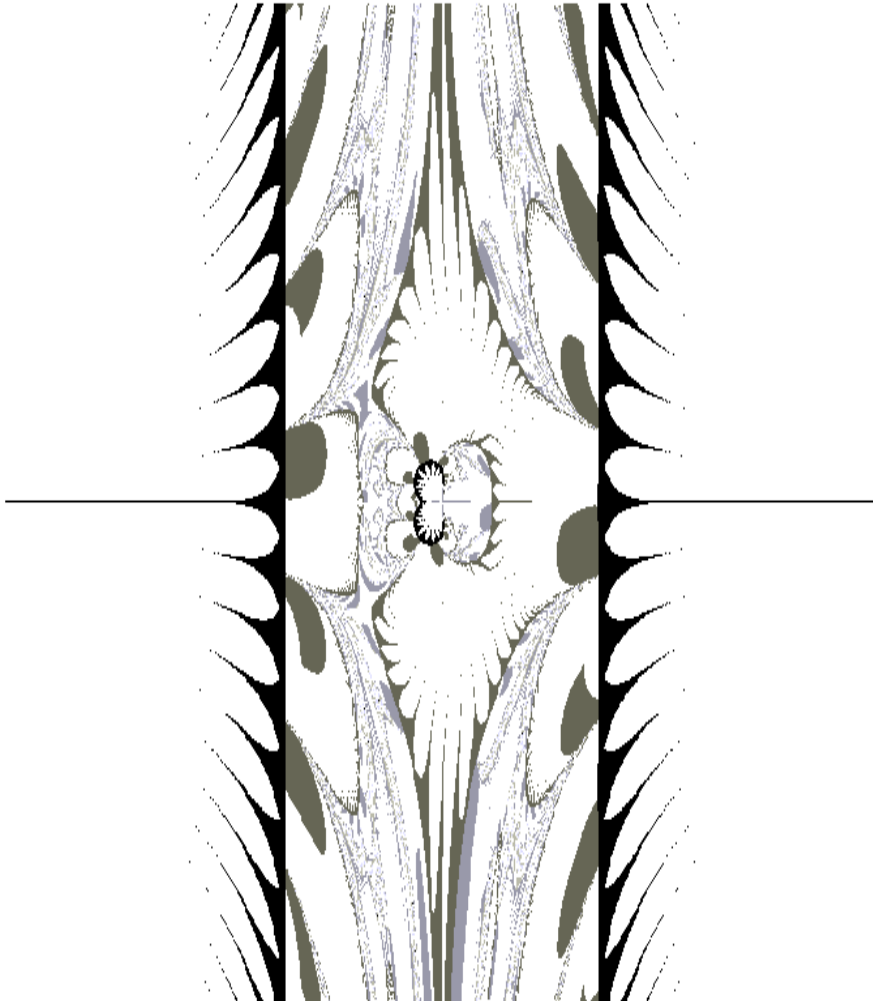


Figure 31

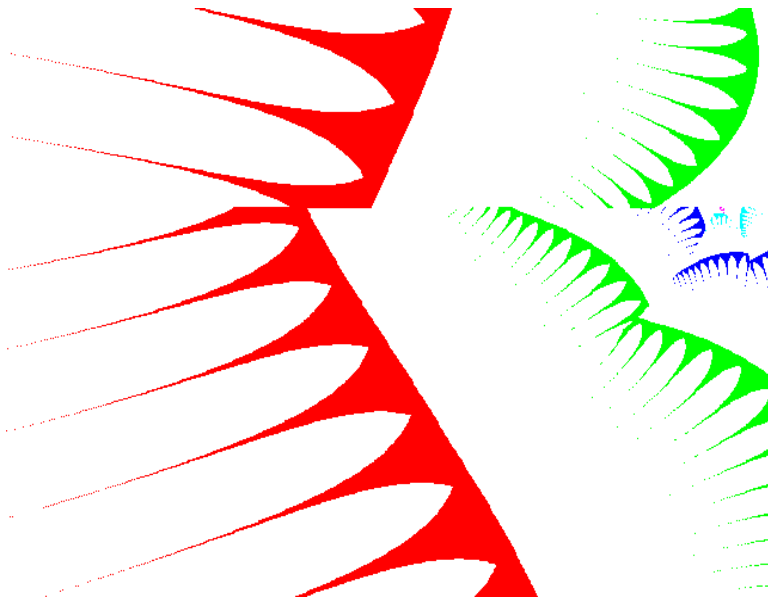


Figure 32

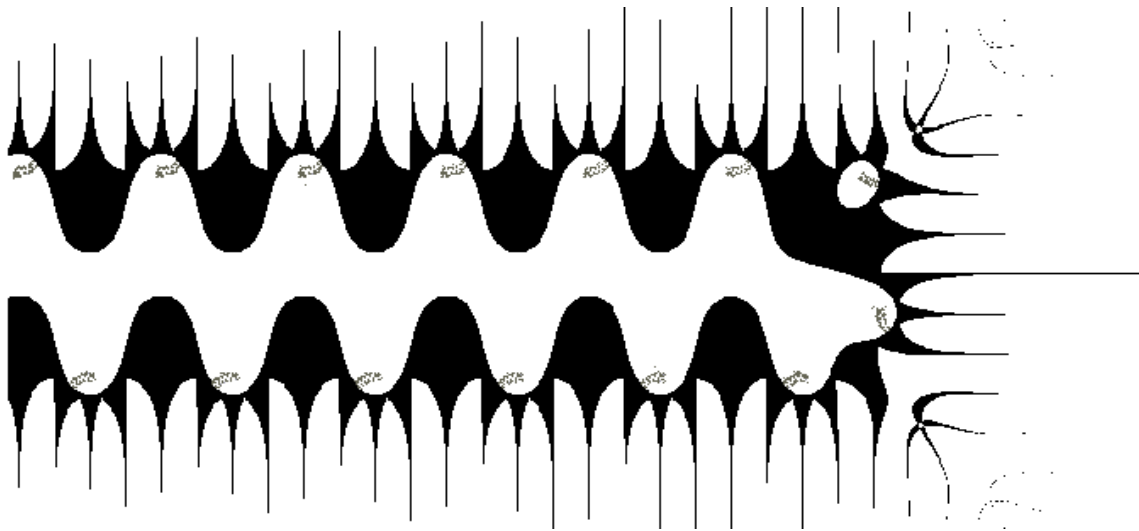


Figure 33

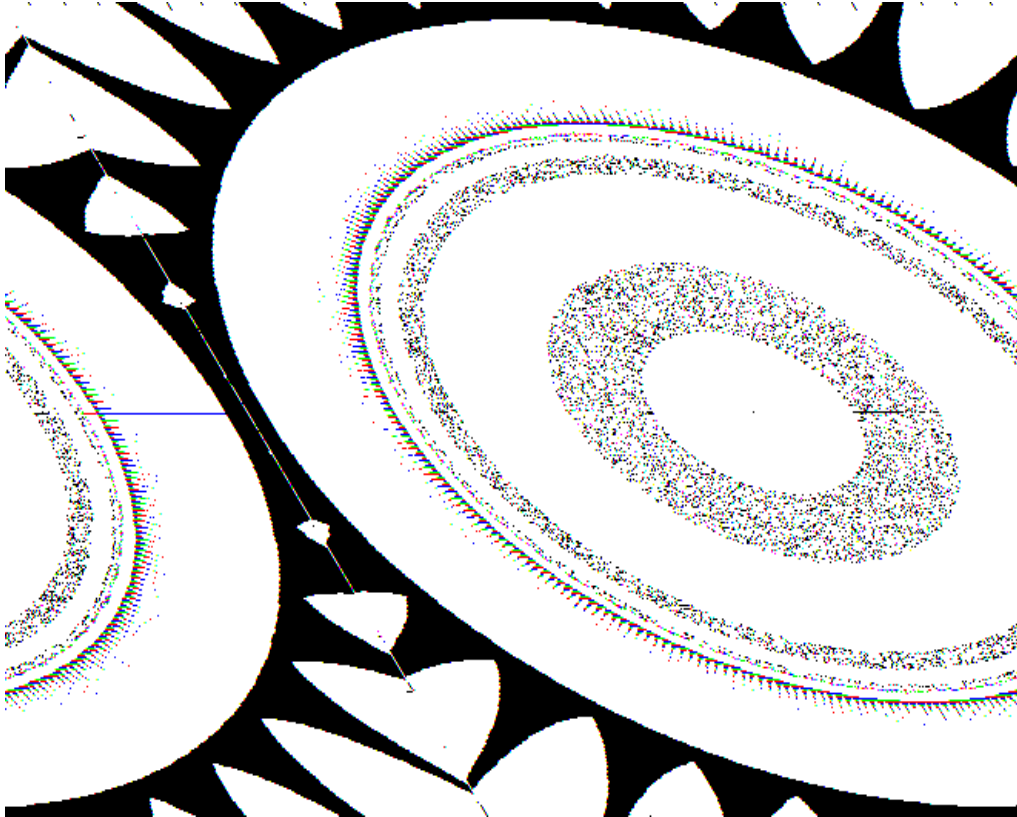


Figure 34

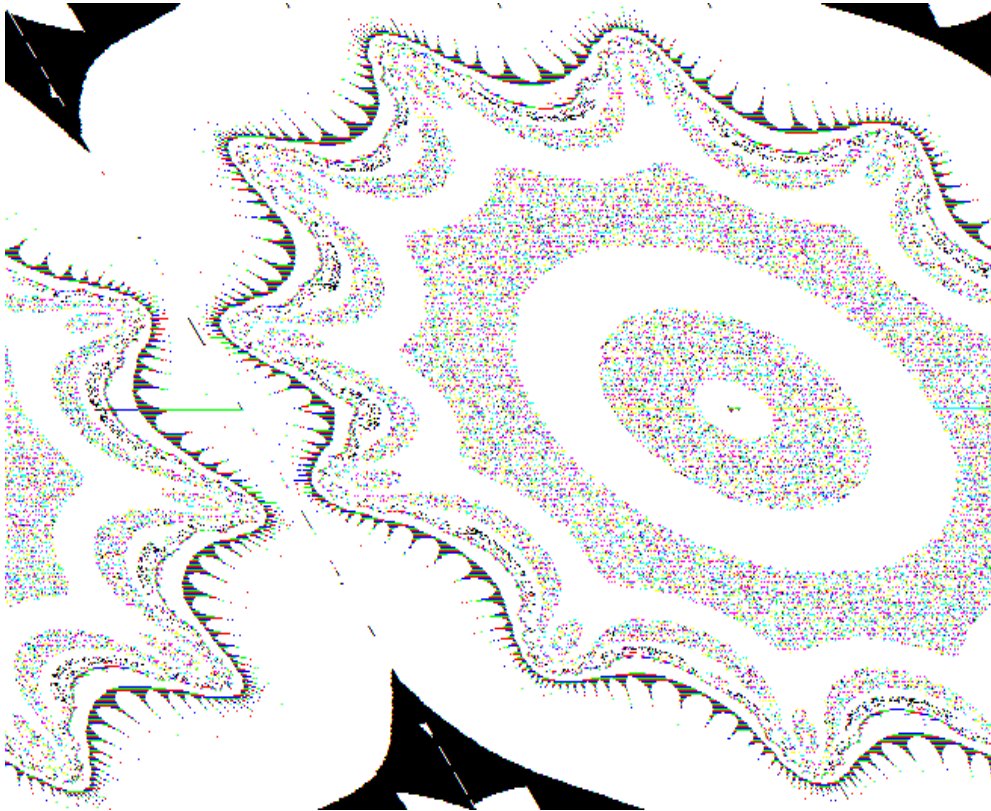


Figure 35

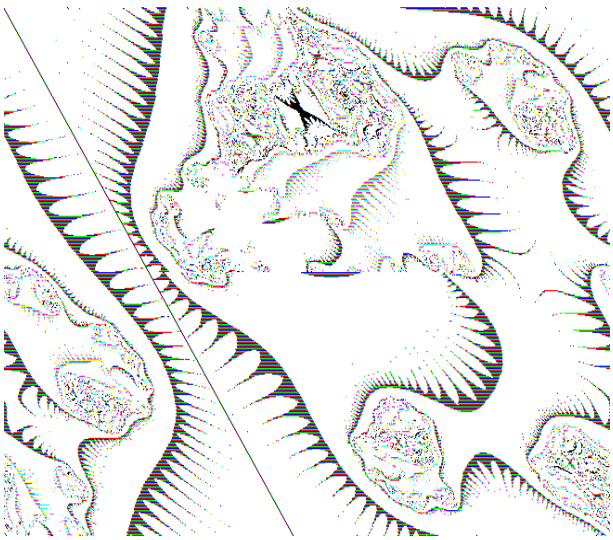


Figure 36

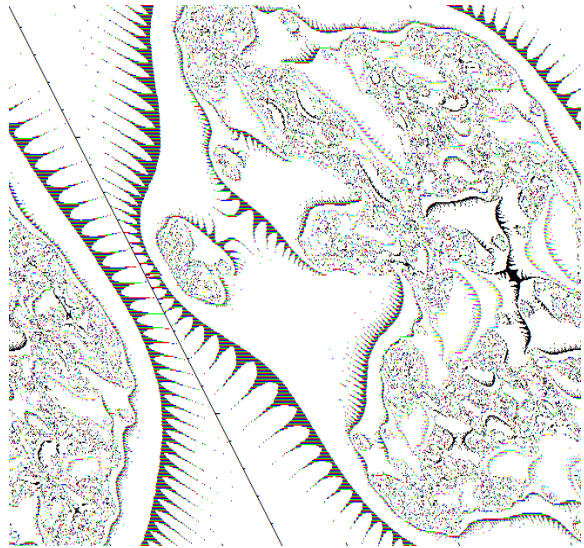


Figure 37

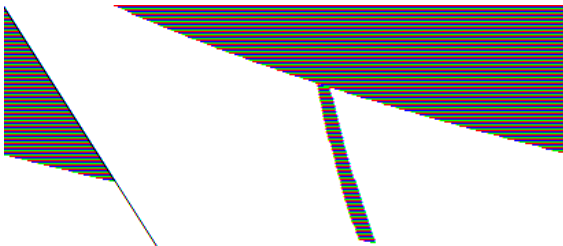


Figure 38



Figure 39

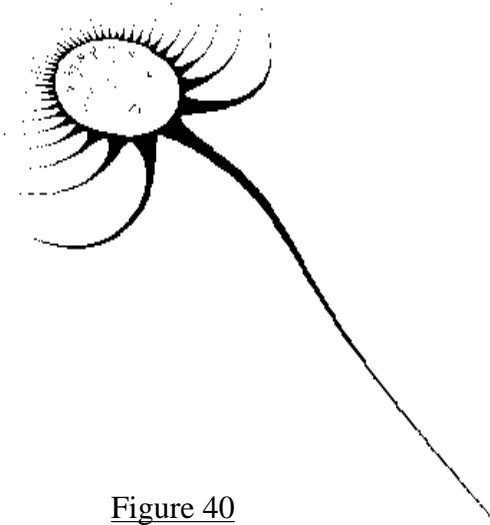


Figure 40

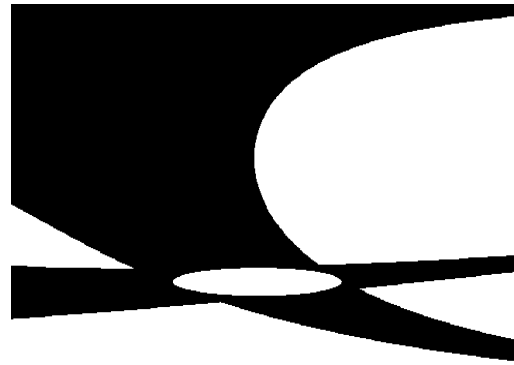


Figure 41

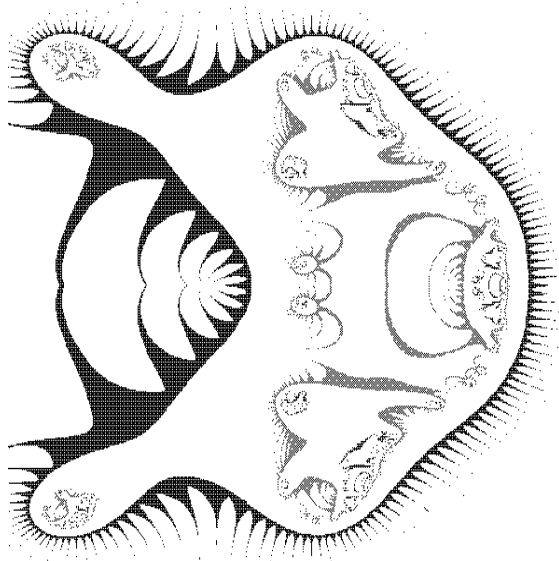


Figure 42

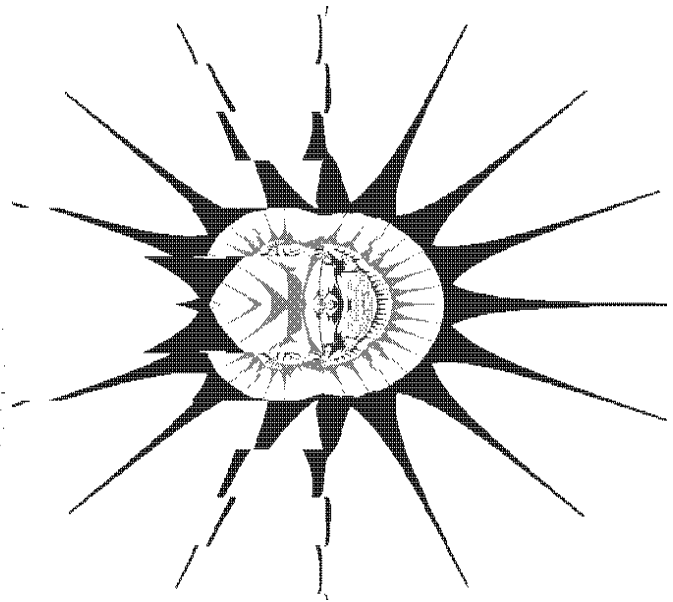


Figure 43

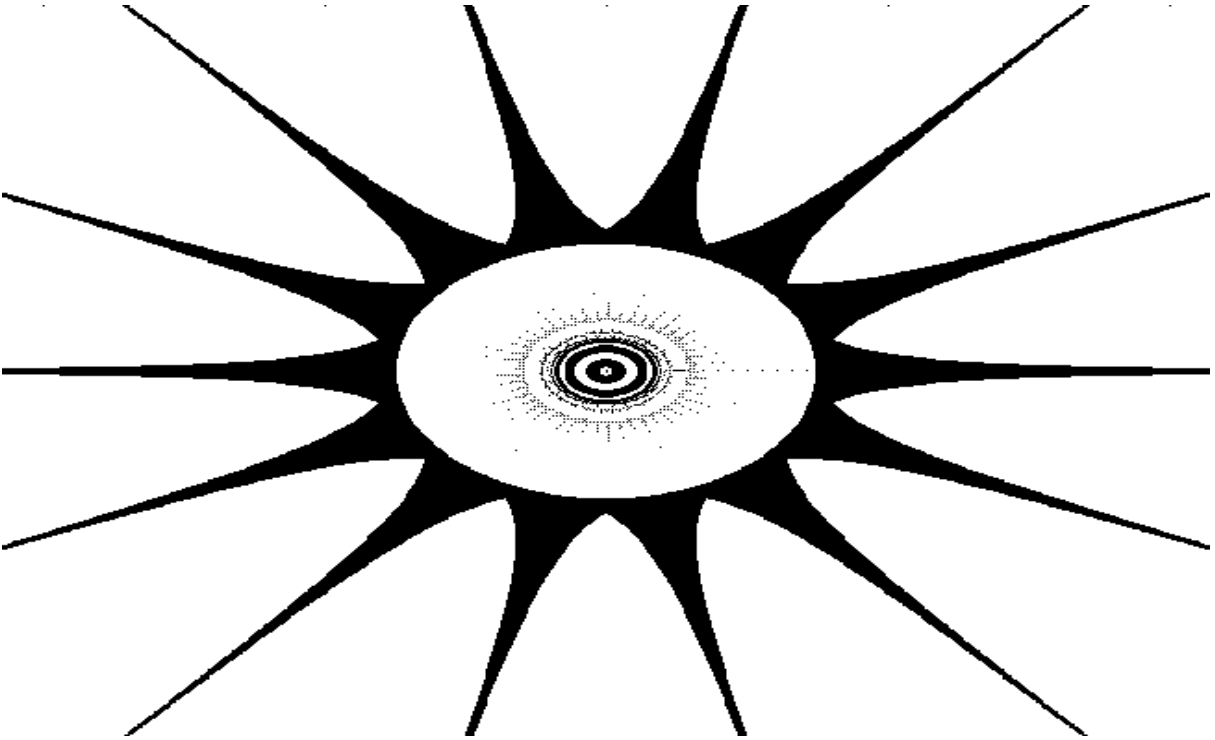


Figure 44

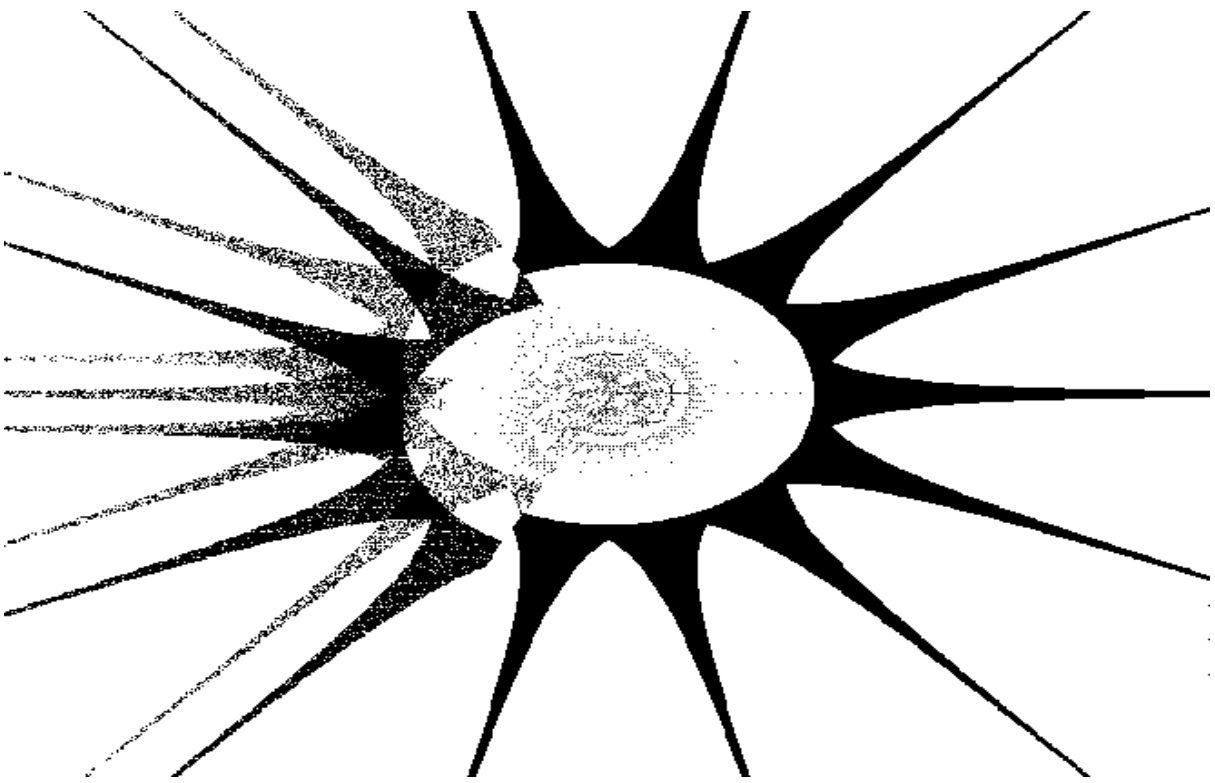


Figure 45

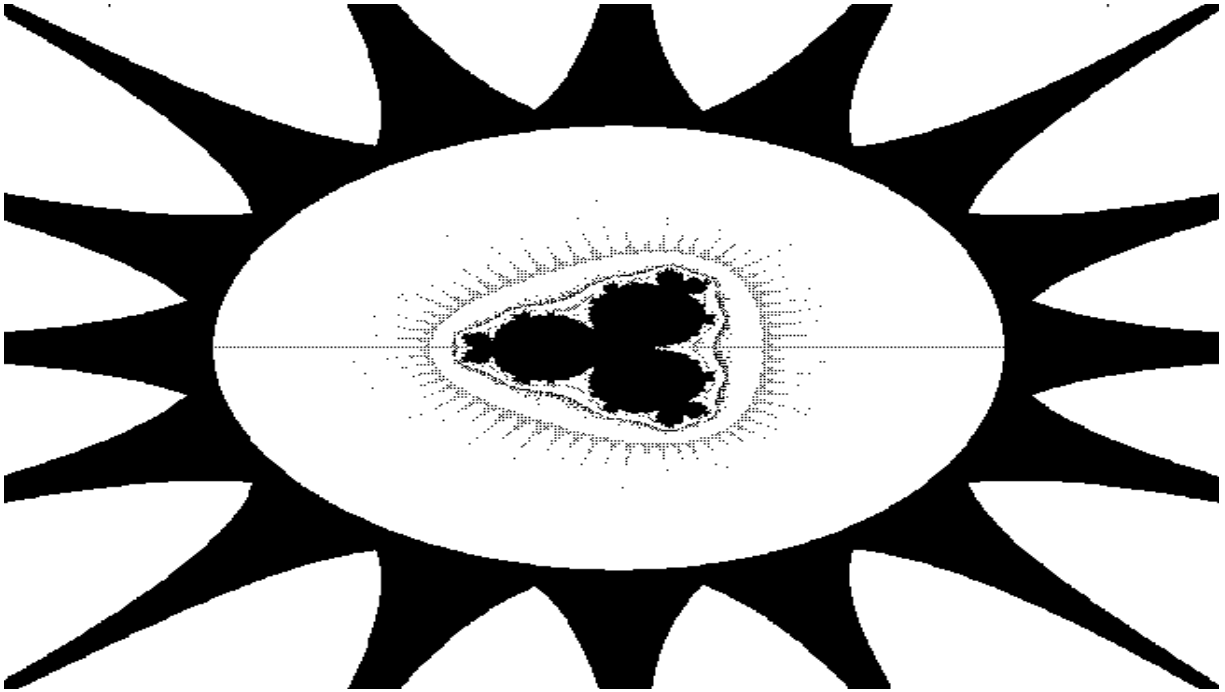


Figure 46

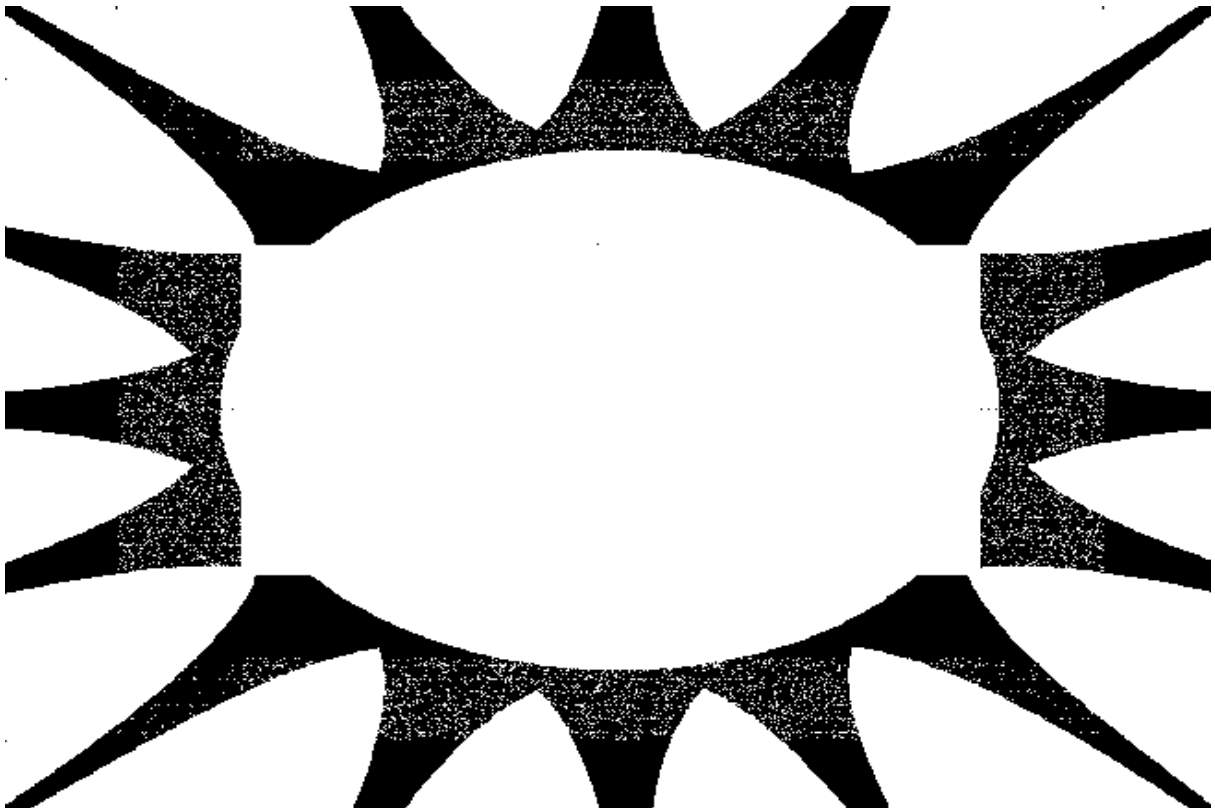


Figure 47

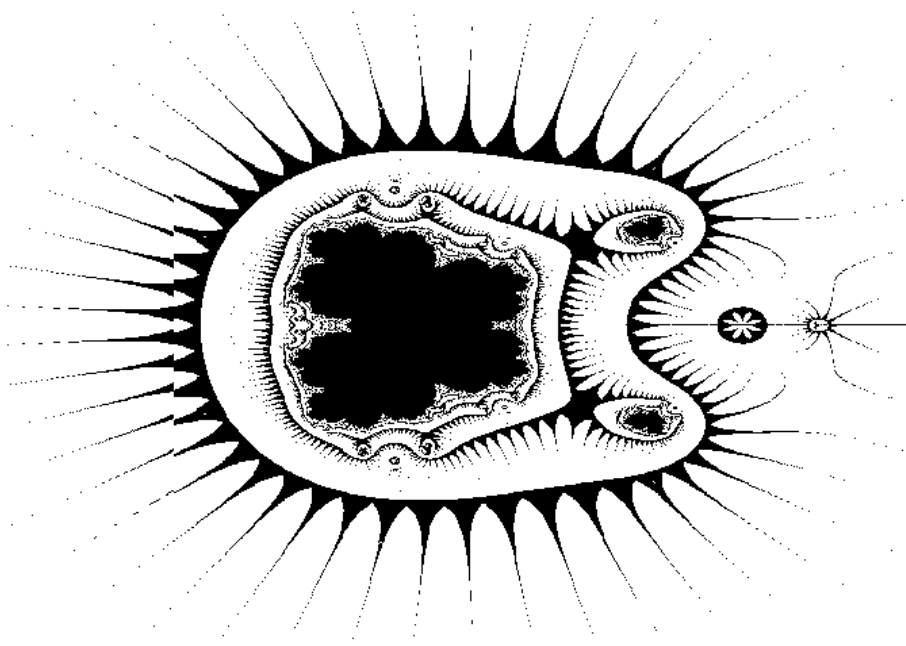


Figure 48

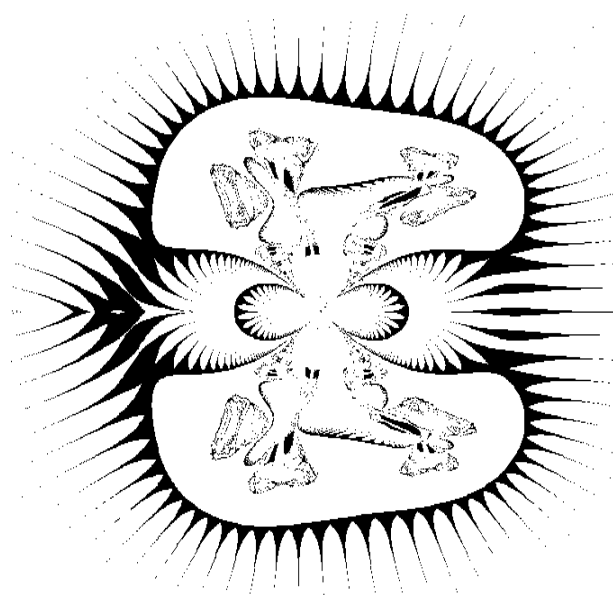


Figure 49

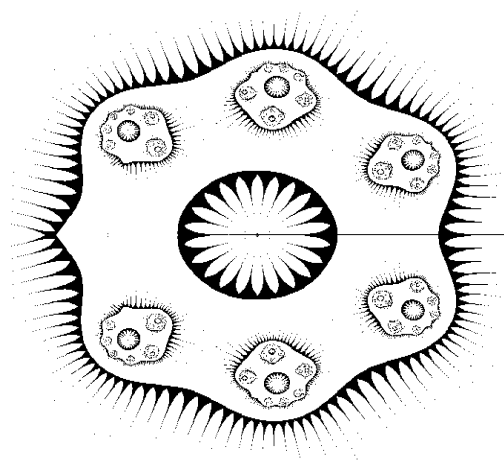


Figure 50

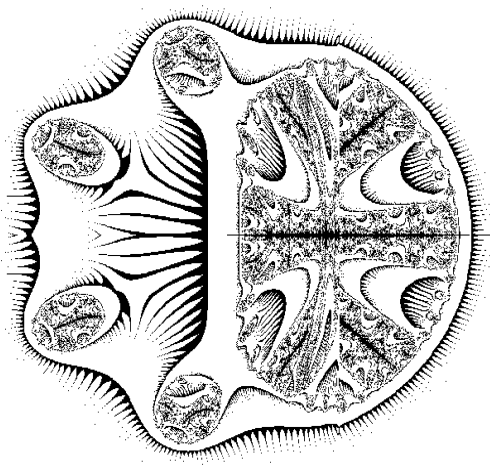


Figure 51

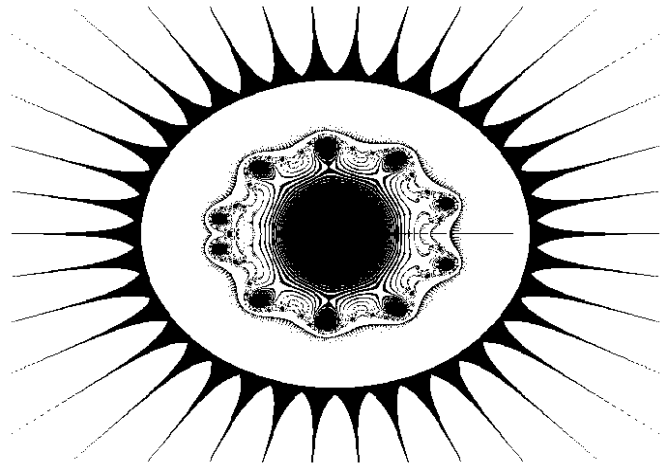


Figure 52

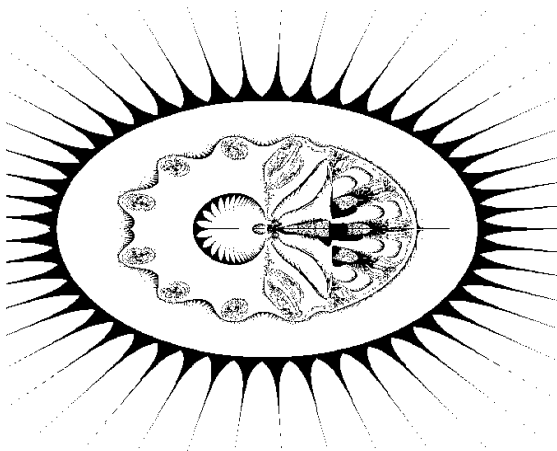


Figure 53

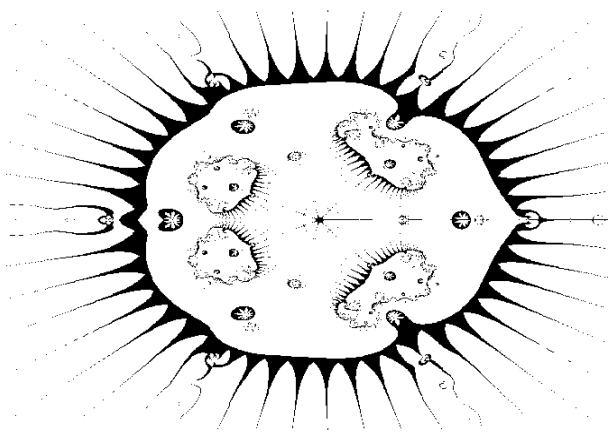


Figure 54

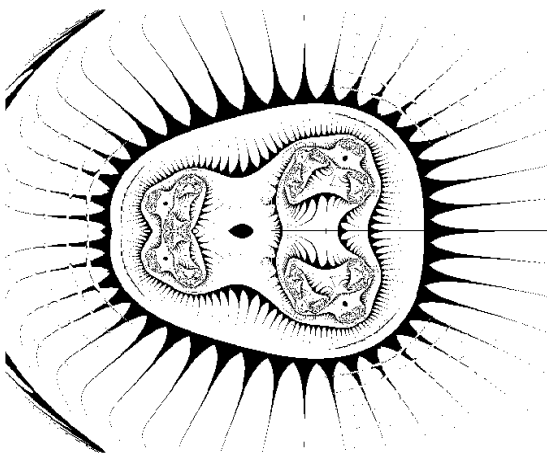


Figure 55

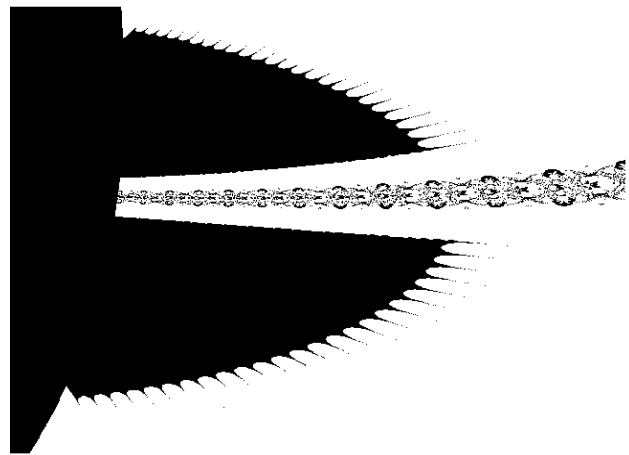


Figure 56

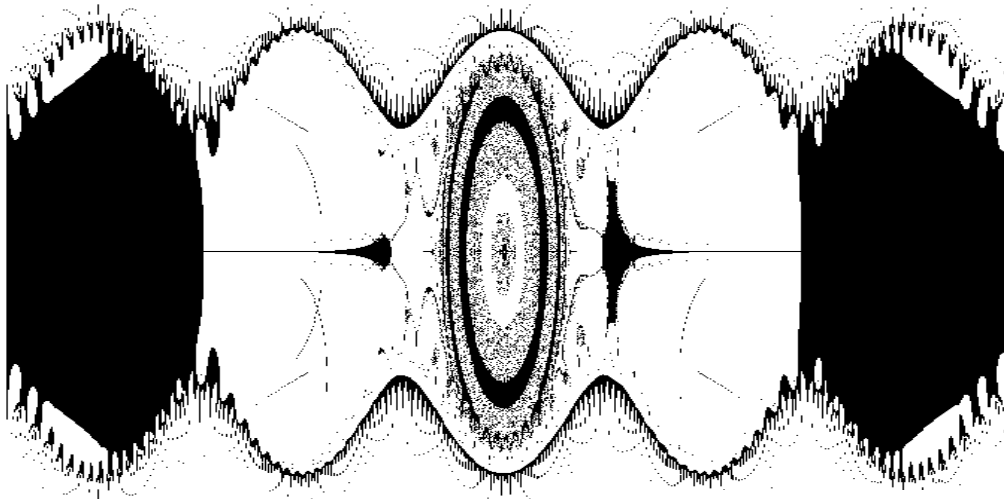


Figure 57

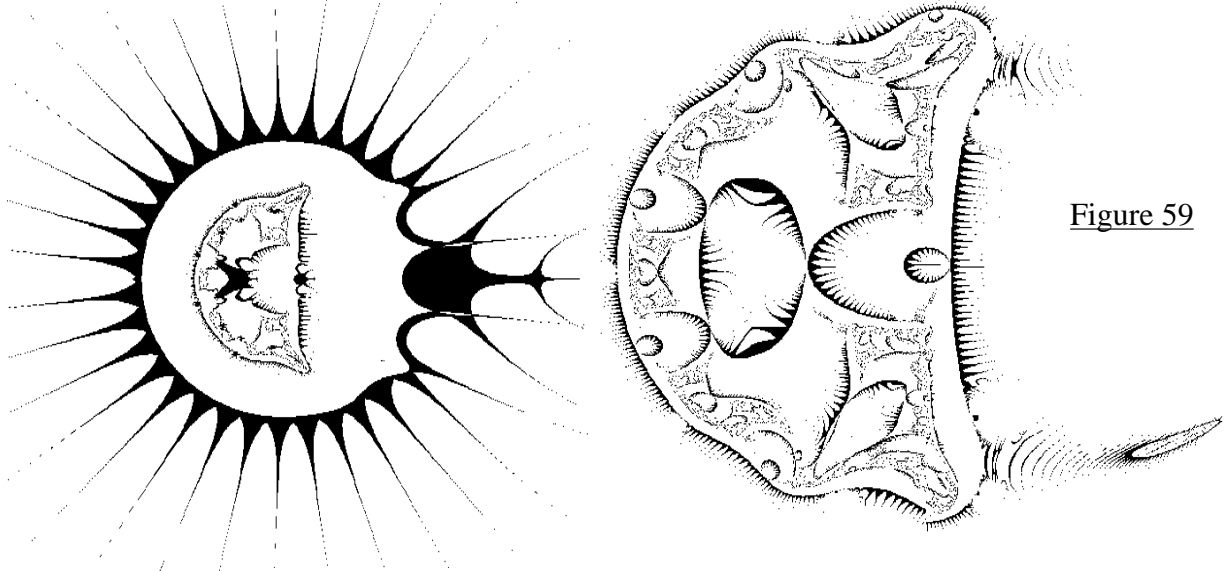


Figure 59

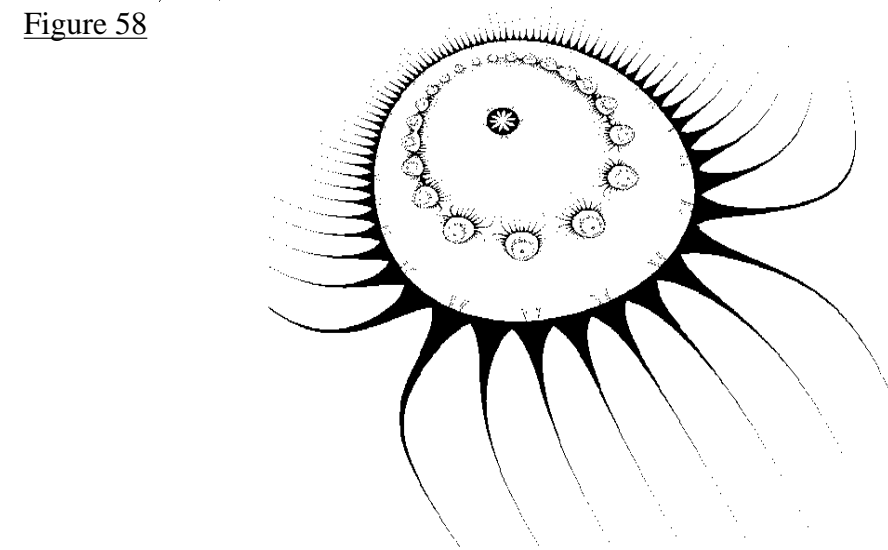


Figure 60

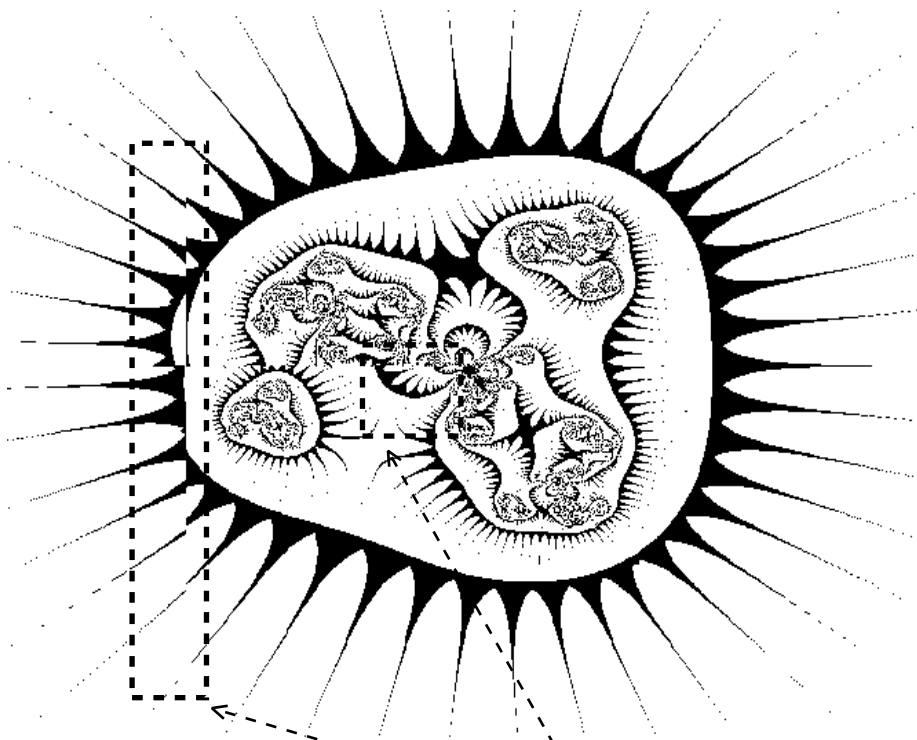


Figure 61

Dashed regions are examples of morphological aberrations.

Table 1: formulas and parameter values

<u>#</u>	<u>Formula</u>	<u>X limits</u>	<u>Y limits</u>	<u>v value</u>	<u>i-limit</u>
1	$\text{conj}(z)^{4.3}+ z ^z+v$	-7.0 to 7.0	-7.0 to 7.0	(3.5,0)	100
2	$z^{9.5}+\sin(z)+v$	-1.5 to 1.5	-1.5 to 1.5	(2,-3)	60
3	$\sin(z)+e^z+v$	-2.398 to -2.433	1.73 to 1.765	(5,-3)	100
4	$e^{z-\tan(z)}+z^{4.5}+z^{5.5}+v$	0.2 to 0.8	0.2 to 0.95	(0,0)	30
5	$z^{9.5}+\cos(e^z)+v$	-1.3 to 1.3	-1.3 to 1.3	(2,0)	100
6	$z^{8.5}+z^{0.5}+v$	-1.1 to 1.1	-1.1 to 1.1	(0,0)	20
7	$z^4+\sin(z)+v$	-2.5 to 2.5	-2.5 to 2.5	(0,-26)	100
8	$\sin(z^{0.5})+z^3+v$	-3.2 to 3.0	-3.2 to 4.0	(0,0)	100
9	$z^{\text{conj}(z)}+z^2+v$	-4.3 to 4.3	-5 to 5	(0,0)	25
10	$\sin(2\cdot z)+z^2+v$	-9 to 9	-6 to 6	(0,0)	100
11	$z^{2.6}+\sin(z)+(e^z)^{1.4}+v$	-9 to 8	-8 to 8	(0.2,1.7)	20
12	$z^{2.5}+\sin(z)+(e^z)^{0.7}+v$	-8 to 8	-8 to 8	(-0.2,2.7)	18
13	$z^2+\sin(z)+v$	-12 to 12	-8 to 8	(-3.7,5.0)	100
14	$z^2+\sin(z)+v$	-3.0 to 8.0	-0.5 to 5.5	(-9,-12.7)	100
15	$z^z+\cos(z)+v$	-5.17 to -2.77	0.69 to 5.5	(3.2,8.7)	100

Table 1: continued

16	$\text{conj}(z)^{4.3}+ z ^z+\nu$	-1.2 to -0.2	0.1 to 1.4	(3.5,0)	20
17	$\sin(z)+e^z+\nu$	1.3 to 4.7	1.0 to 4.0	(5,-0.2)	100
18	$\sin(z)^3+e^z+\nu$	-7.0 to 7.0	-5.0 to 5.0	(5,-0.8)	10
19	$z^{5.5}+\cos(z)+\nu$	-1.5 to 1.5	-1.8 to 1.8	(0,0)	100
20	$z^3+\nu$	-1.6 to 1.6	-1.6 to 1.6	(-0.5,-2.0)	100
21	$z^z+z^6+\nu$	-1.1 to 1.1	-2.0 to 2.0	(0.5,0)	100
22	$z^3+\nu$	-3.0 to 3.0	-3.0 to 3.0	(0.5,-1.0)	100
23	$z^{5.2}+\sin(5z)+(e^z)^{0.8}+\nu$	-3.5 to 3.1	-3 to 2.5	(0,0)	15
24	$z^z+e^z+\nu$	3.15 to 3.7	2.05 to 3.0	(5.0,-0.2)	45
25	$z^{8.5}+z^{3.5}+\nu$	-0.03 to 0.0	-0.04 to 0.0	(0,0)	20
26	$\sin(z)+e^z+\nu$	-8.0 to 8.0	-8.0 to 8.0	(1,-2)	100
27	$z^{1/z}+ z ^z+\nu$	-5.0 to 5.0	-5.0 to 5.0	(0,0)	100
28	$z^{1/z}+z^3+\nu$	-2.5 to 3.5	-2.5 to 3.4	(0,0)	100
29	$z^{1/z}+z^{2.5}+\nu$	-3.0 to 4.0	-3.9 to 3.9	(0,0)	100
30	$z^{1/z}+z\cdot\sin(z)+z^{5.5}+\nu$	-1.15 to 1.5	-1.4 to 1.45	(0,0)	100
31	$z^{1/z}+ e^z ^z+\nu$	-6.0 to 6.0	-5.0 to 5.0	(0,0)	100
32	$z^{5.5}+\cos(z)+\nu$	-1.3 to -0.5	-0.5 to 0.22	(-1.5,-0.3)	100
33	$\sin(z)+e^z+\nu$	-35.0 to 15.0	-15.0 to 15.0	(-0.5,29)	30

Table 1: continued

34	$z^{8.5}$	-1.5 to 1.5	-1.5 to 1.5	(0,0)	20
35	$z^{8.5}+\text{conj}(z)^{3.3}$	-1.2 to 1.2	-1.2 to 1.2	(0,0)	20
36	z^z+z^6+v	-1.3 to 1.3	-1.0 to 1.0	(-0.3,0.8)	100
37	z^z+z^6+v	-1.3 to 1.3	-1.0 to 1.0	(-0.7,0.4)	100
38	$z^2+\sin(z)+v$	-0.2 to 0.4	-0.2 to 0.2	(3,5.5)	100
39	$z^2+\sin(z)+v$	-0.2 to 0.4	-0.2 to 0.2	(3.5,5.5)	100
40	$0.1z^{9.5}+0.9\cdot\sin(z)+v$	-1.55 to 0.55	-0.77 to 1.71	(2,-3)	60
41	$\text{conj}(z)^{4.3}+ z ^z+v$	3.87 to 4.73	0.66 to 1.9	(3.5,0)	100
42	$\log(\text{conj}(\sin(z)))+z^7+v$	-0.8935 to 1.2277	-1.2172 to 1.108	(0,0)	100
43	$\log(\text{conj}(\tanh(z)))+z^2+v$	-8.3 to 9.17	-9.8 to 9.7	(0,0)	100
44	$z^{3.5}$	-5.0 to 5.0	-5.0 to 5.0	(0,0)	100
45	$(z+\text{rand}(\log(z)))^{3.5}$	-5.0 to 5.0	-5.0 to 5.0	(0,0)	100
46	$z^4+\sin(z)+v$	-2.5 to 2.5	-2.5 to 2.5	(0,-26)	100
47	$z^4+\sin(z)+v$	-2.5 to 2.5	-2.5 to 2.5	(0,-26)	100
48	$z^{3.5}+1/(\log(\sin(z)))$	-2.5 to 2.5	-2.6 to 2.6	(0,0)	100
49	$\exp(1/z^2)+\text{conj}(z)^{4.5}$	-1.65 to 1.56	-1.8 to 1.73	(0,0)	100

Table 1: continued

50	$z^{5.5}+1/\sin(z)$	-1.4 to 1.4	-1.5 to 1.5	(0,0)	100
51	$\cos(e^z)^z+z^{8.3}$	-1.4 to 1.18	-1.2 to 1.3	(0,0)	100
52	$\sin(\tan z)+1/(z^2)+z^{9.5}$	-2.7 to 2.7	-2.4 to 2.4	(0,0)	100
53	$\cos(e^z)+1/z+z^{12.3}$	-1.8 to 2.0	-2.5 to 2.5	(0,0)	100
54	$z^{3.5}+1/(\cos(z^3))$	-2.5 to 2.3	-2.2 to 2.2	(0,0)	100
55	$\sin(z)^z+z^{3.3}$	-2.6 to 2.6	-2.6 to 2.6	(0,0)	100
56	$z^{(1/\sin(z))}+e^z$	-2.62 to -2.55	3.572 to 3.694	(0,0)	100
57	$z^3+\sin(z)^{32}$	-7.7 to 7.8	-1.1 to 1.1	(0,0)	100
58	$(e^z)^{3.2}+\text{conj}(z)^{8.8}$	-3.3 to 3.6	-3.66 to 3.6	(0,0)	100
59	$e^{(z/\cos(z))}+\text{reverse}(z)^{9.8}$	-1.2 to 1.0	-1.2 to 1.2	(0,0)	100
60	$(z^{22}+\sin(z))/z^{3.5}$	-0.472 to 0.205	0.7128 to 0.996	(0,0)	100
61	$z^{3.3}+\sin(z)^{w/z}+u$	-2.6 to 2.6	-2.6 to 2.6	(0.1,-0.2)	100

Table 2: movie specifications

#	Formula	X limits	Y limits	v value	i-limit
1	$z = a(z^6+z^z)+bz^{8.5}+v$	-2.0 to 2.0	-2.0 to 2.0	(0.5,0)	100
	<i>a</i> and <i>b</i> are real numbers. <i>a</i> goes from 0.0 to 1.0, while simultaneously, <i>b</i> goes from 1.0 to 0.0 in equal steps, each such pair (<i>a</i> , <i>b</i>) defining a single frame of the movie.				
2	$z = z^{5.5}+\cos(z)+v$	-1.4 to -0.9	-0.5 to 0.22		100
	Real(<i>v</i>) stays at 0.0. Imaginary(<i>v</i>) goes from 0.0 to -0.8. Each value of <i>v</i> defines a single frame of the movie.				
3	$z = z^2+\sin(z)+v$	-2.0 to 2.0	-2.0 to 2.0		100
	Imaginary(<i>v</i>) stays at 5.5. Real(<i>v</i>) goes from 3.0 to 3.5. Each value of <i>v</i> defines a single frame of the movie.				
4	$z = az^{8.5}+b(\sin(z^{0.5})+z^3)+v$	-4.0 to 4.0	-4.0 to 4.0	(0,0)	100
	for each <i>f</i> from 0 to 160, $a = f \cdot 0.01$, $b = 1 - f \cdot 0.01$. Each (<i>a</i> , <i>b</i>) pair defines a single frame of the movie, when plugged into the formula.				
5	$z = az^{1/z}+bz^{8.5}+v$	-5.0 to 5.0	-5.0 to 5.0	(0,0)	100
	<i>a</i> and <i>b</i> are real numbers. <i>a</i> goes from 0.0 to 1.0, while simultaneously, <i>b</i> goes from 1.0 to 0.0 in equal steps, each such pair (<i>a</i> , <i>b</i>) defining a single frame of the movie.				
6		-8.0 to 8.0	-8.0 to 8.0		
	$z = a \cdot (z^{2.6}+\sin(z)+(e^z)^{1.4}+v) + b \cdot (z^{2.5}+\sin(z)+(e^z)^{0.7}+v)$; for each frame, <i>a</i> goes from 0.0 to 1.0, while simultaneously <i>b</i> goes from 1.0 to 0.0, <i>u</i> goes from (-0.2,2.7) to (0.2,1.7) (real and imaginary components simultaneously), and i-limit goes from 18 to 20.				

Table 2: continued

<u>#</u>	<u>Formula</u>	<u>X limits</u>	<u>Y limits</u>	<u>v value</u>	<u>i-limit</u>
7	$z = z^{1.5+a} + v$ <i>a goes from 0 to 3.0.</i>	-8.0 to 8.0	-8.0 to 8.0	(0,0)	100
8	$z = z^a + a \cdot z^{1/z} + v$ <i>a goes from 0 to 3.0</i>	-8.0 to 8.0	-8.0 to 8.0	(0,0)	100
9	$z = z^3 + a \cdot z + \sin(a \cdot z)$ <i>a goes from -10.0 to 10.0.</i>	-8.0 to 8.0	-8.0 to 8.0	(0,0)	100
10	$z = 4 \cdot z^3 + 3 \cdot z + v$ The imaginary part of <i>v</i> stays at 0.0, while the real part of <i>v</i> goes from 0.0 to 3.3.	-1.3 to 1.3	-1.5 to 1.5		100
11	$z = a \cdot z + b \cdot z^3$ <i>a goes from 3 to 4.8 while simultaneously b goes from 4 to 5.8.</i>	-1.3 to 1.3	-1.5 to 1.5	(0,0)	100
12	$z = e^{1/z} + z^{3.5}$ limit goes from 5 to 80.	-2.0 to 2.4	-2.2 to 2.0	(0,0)	
13	$z = e^{1/z} + a \cdot z$ <i>a goes from 1.5 to 3.1.</i>	-3.0 to 3.0	-3.0 to 3.0	(0,0)	100
14	$z = z^a + z^{-a}$ <i>a goes from 3.0 to 7.0</i>	-3.5 to 3.5	-3.5 to 3.5	(0,0)	100