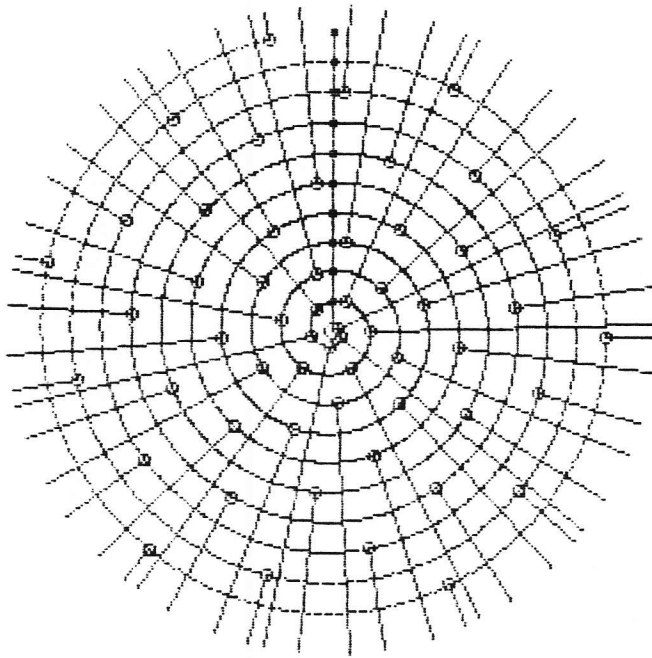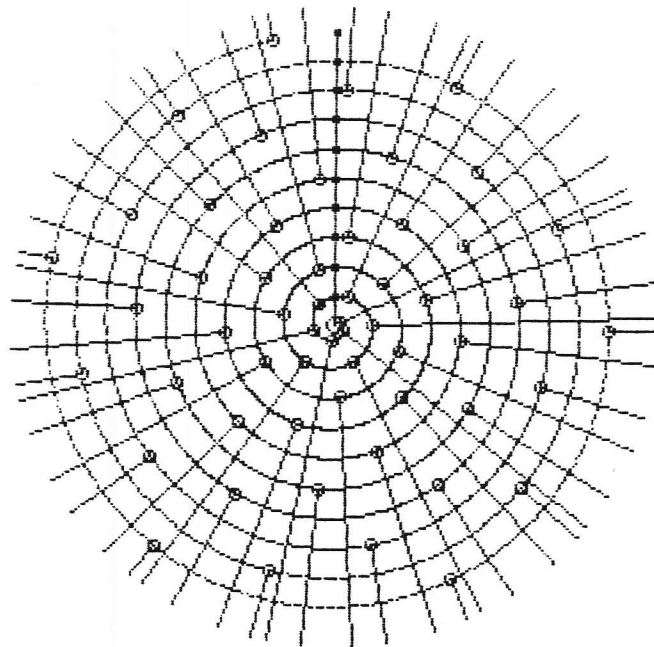30 Notes of 1/4-C Meantone Fourth as a 13 -turn Archimedean spiral
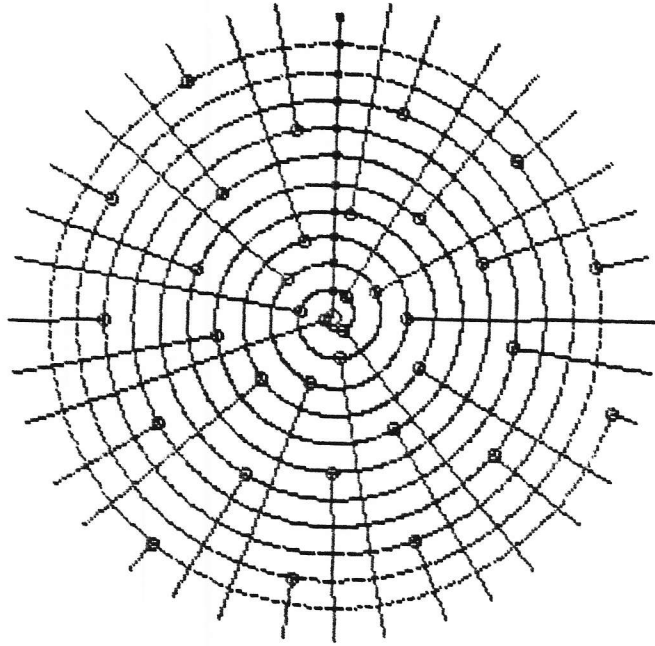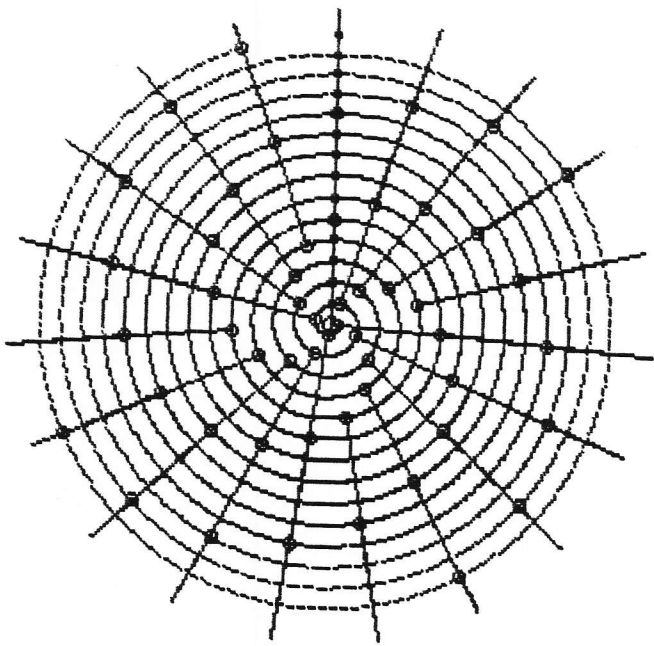
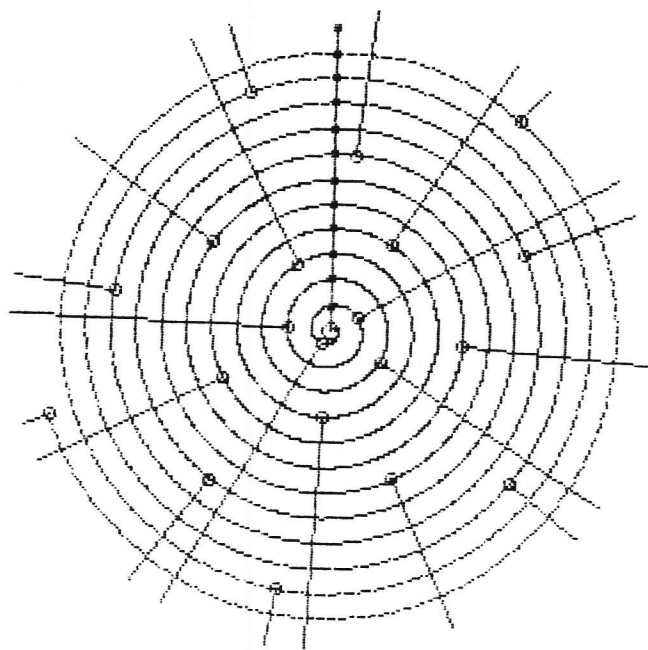56 Notes of Wilson Omega as a 10 -turn Archimedean spiral

35 Notes of 2/PHI as a 11 -turn Archimedean spiral
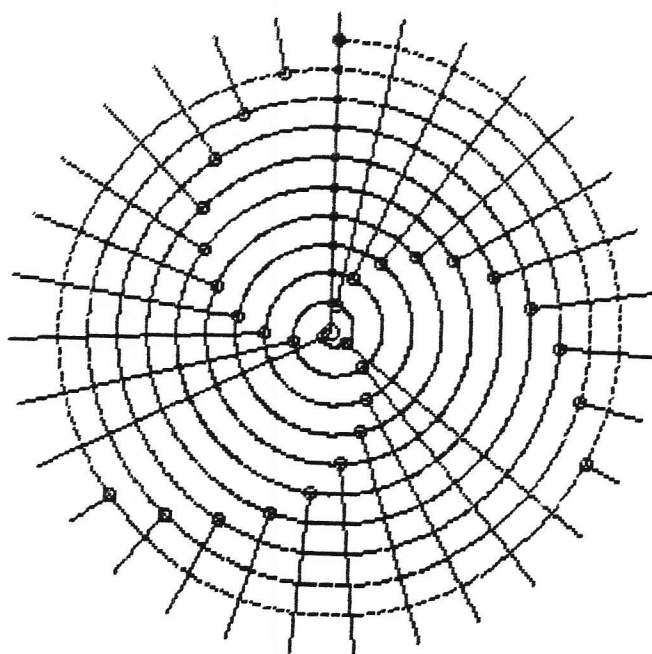

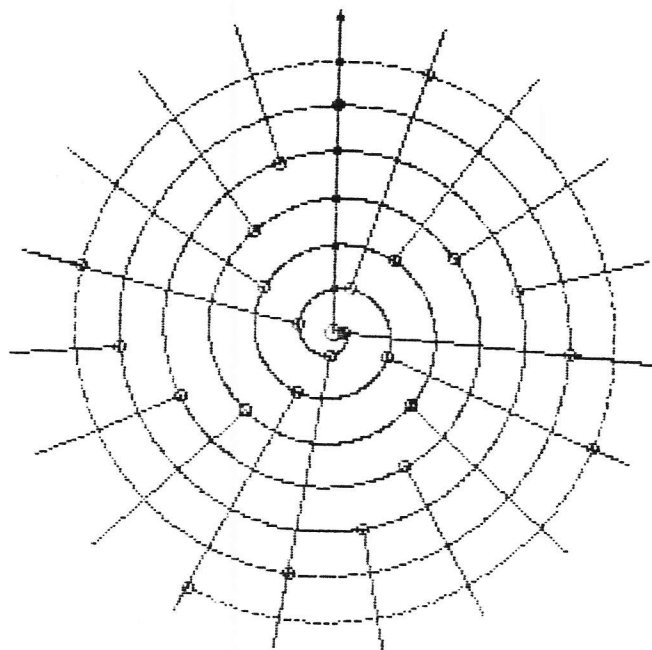## 53 Notes of 19-Tet minor thirds as a 14 -turn Archimedean spiral

20 Notes of Pythagorean as a 12 -turn Archimedean spiral

31 Notes of Tmajor/31 as a 10 -turn Archimedean spiral

25 Notes of 19-Tet minor thirds as a 7 -turn Archimedean spira

```basic
REM Wilsonion plots on Archimedean spirals
pi= 3.1415926#
p2=pi/2
ST1$=" as a"
ST2$ ="-turn Archimedean spiral"
RESTORE scales
start:

READ S, A, L$, X,Y,D
IF S<=0 THEN GOTO finis
IF D <0 THEN D=-1 ELSE D=1
A=A/1200
M=A*S
Mp=CINT(M)
K=17.5/M
PRINT S;"Notes of ";L$;ST1$;Mp;ST2$
MM=2*M*pi
N=500*M
theta=0
FOR i= 1 TO N
theta = theta+ MM/N
     R= K*theta
xcor= R  * COS(D*theta-p2)+X
ycor= R  * SIN(D*theta-p2)+Y
 PSET ( xcor, ycor)
NEXT

REM Plot notes of scale or intervals in set
REM mark the 1/1
 CIRCLE (X, Y), 3
theta=0
PC=0
FOR i= 1 TO S
PC= PC+ A
theta=MM*PC/M
     R=K*theta
 xcor= R  * COS(D*theta-p2)+X
 ycor= R  * SIN(D*theta-p2)+Y
CIRCLE (xcor, ycor), 2
     R3=K*MM+10
 xcor3= R3  * COS(D*theta-p2)+X
 ycor3= R3  * SIN(D*theta-p2)+Y
LINE (xcor,ycor)-(xcor3,ycor3)
 NEXT

REM connects origin to end
Mx=2*Mp*pi
theta=0
FOR i= 1 TO Mp
theta = theta+ Mx/Mp
     R= K*theta
 xcor4= R  * COS(D*theta-p2)+X
 ycor4= R  * SIN(D*theta-p2)+Y
 LINE ( xcor4,ycor4)-(X,Y)
CIRCLE (xcor4, ycor4), 1
NEXT

 PRINT "  Another?, enter Y <CR>."
INPUT  BB$
IF BB$ = "Y" OR BB$="y" THEN CLS: GOTO start
```

```
finis:
END

REM the final field determines the direction of the spiral, Positive
REM for clockwise, negative for counterclockwise.

scales:

DATA 25, 315.79, "19-Tet minor thirds",225, 160, 1

DATA 56, 213.50, "Wilson Omega",225, 160,1

 DATA 30, 503.42, "1/4-C Meantone Fourth",225, 160,-1

 DATA 35, 366.91, "2/PHI",225, 160,-1

DATA 53, 315.79, "19-Tet minor thirds",225, 160, 1

 DATA 20, 701.955, "Pythagorean",225, 160,  1

DATA 31, 387.097, "Tmajor/31",225, 160,-1

 DATA 12, 1000, "12-Tet ints",225, 160,-1

DATA 41,  292.68, "41-Tet ints",225, 160, 1

 DATA 19, 1136.84, "19-Tet ints",225, 160,-1

 DATA 12, 1100, "12-Tet ints",225, 160,-1

 DATA 9, 833.09, "PHI",225, 160,-1
 DATA 13, 833.09, "PHI",225, 160 ,1

 DATA 20, 701.955, "Pythagorean",225, 160, -1

 DATA 30, 503.42, "1/4-C Meantone Fourth",225, 160,1

DATA 0, 0," ",0, -1
```