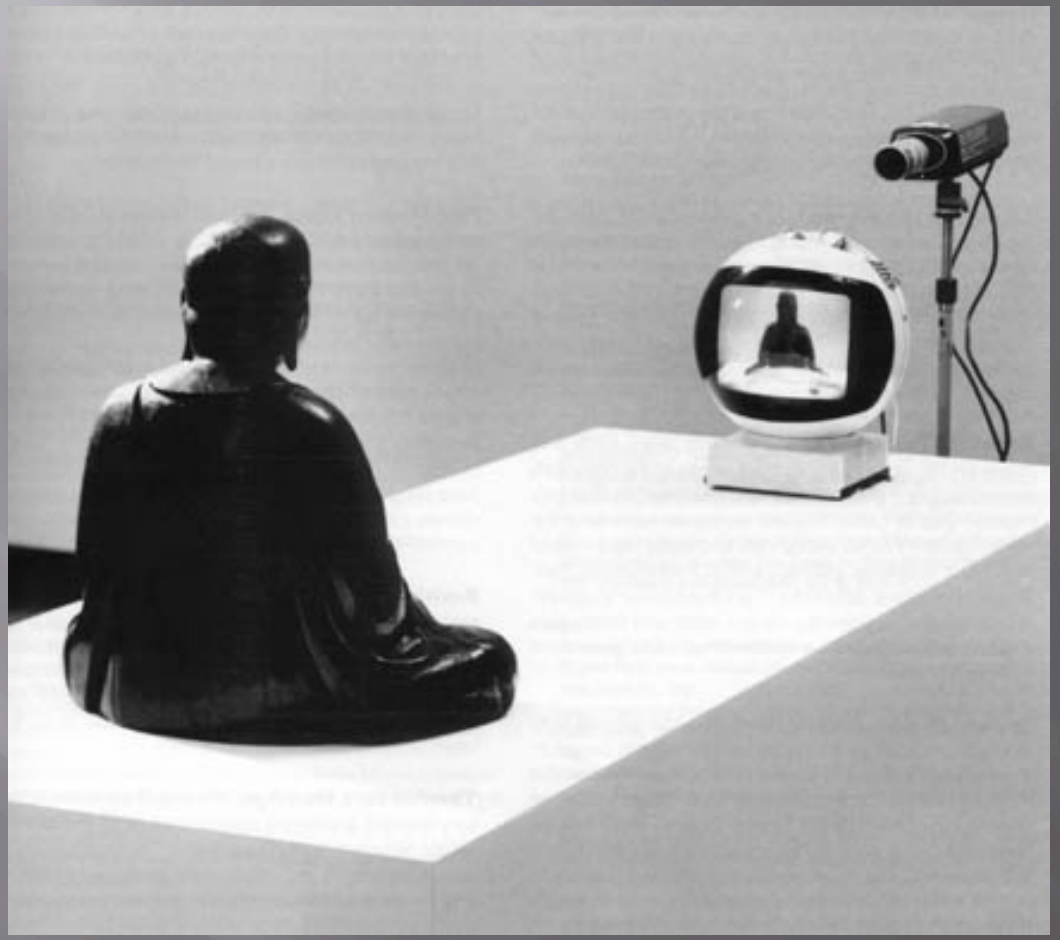
BASIC CONCEPTS IN CREATIVE COMPUTING III

"Computer" Artists or
"Computer Artists"

Principles of Form and Design, Wucius Wong 1993

TV BUDDHA



Artists Using Machines

- John Whitney (Film Art)
- Nam June Paik (video art – TV Buddha)
- Desmond Paul Henry (bombsite computer art)
- Harold Cohen (AARON)
- Stan Vanderbeek

Artists Using Machines

- Larry Cuba
- Vibeke Sorensen
- Malcolm Le Grice
- YAK (Jeff Minter)

Coordinates

Cartesian (x,y)

Polar (Radius, Angle)

How do we measure an angle?

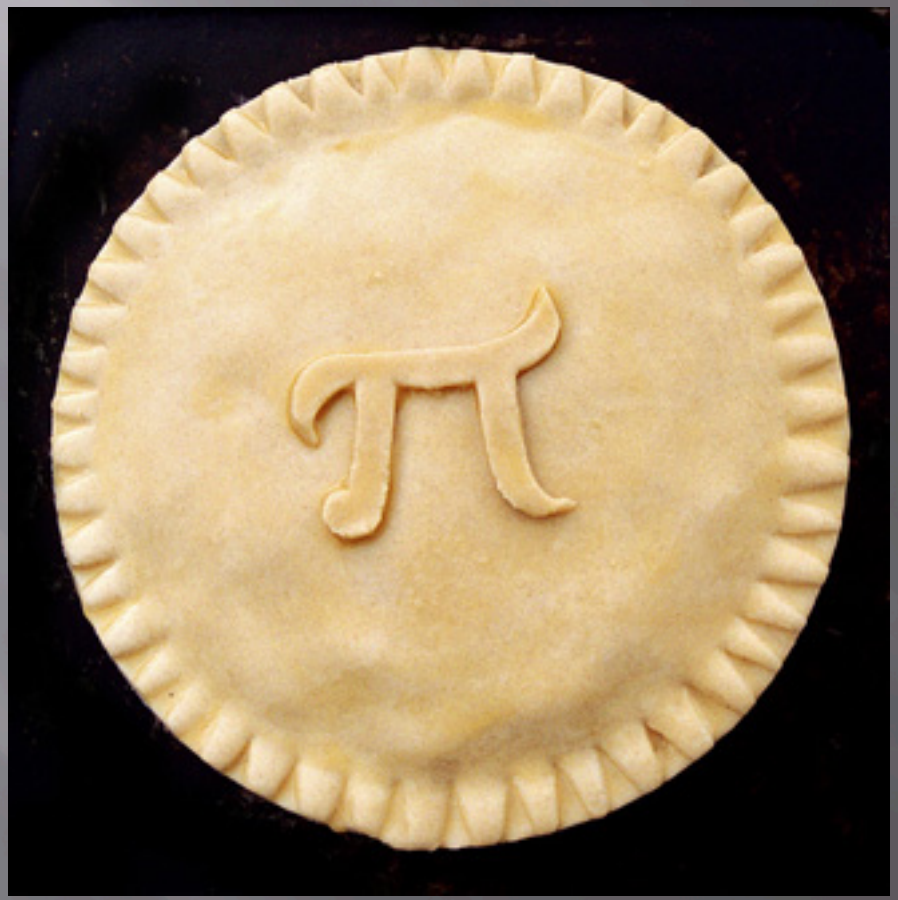
What is a Radius?

What is a Radian?

PI

- How do we measure the outside of a circle (the diameter?)
- What is PI?
- 3.14…. It's what happens when you try to work out the length of the outside of a circle, and you know that the diameter == 1.
- What is PI divided by 2? What is PI * 2?

PI



Generative Art

- Is Tristan Tzara's Cut-Up method 'Generative'?
- What about Sol Lewitt?
- What about John Whitney?

Brian Eno

- “Some very basic forms of generative music have existed for a long time, but as marginal curiosities. Wind chimes are an example”
- “Until a hundred years ago, every musical event was unique: music was ephemeral and unrepeatable, and even classical scoring couldn't guarantee precise duplication”
- *Generative Music 1*

John Conway

- Mathematician
- Conway's *Game of Life*

- Cellular Automata

- S.Wolfram, *A New Kind of Science*:
  - http://www.wolframscience.com/nksonline/toc.html
  - The universe based on cellular automata?

Recursion

- Take something (anything)
- Apply something (anything) to it
- Take what's left
- Apply something to it again
- Keep going….er….that's it

Recursion

- Z=Z^2+C
- Very famous equation
- If you run it over and over again, by taking the answer (the output) and using it as the input, strange things happen.
- Let's do it…

Fractal Geometry

Fractal Geometry

Fractal Geometry

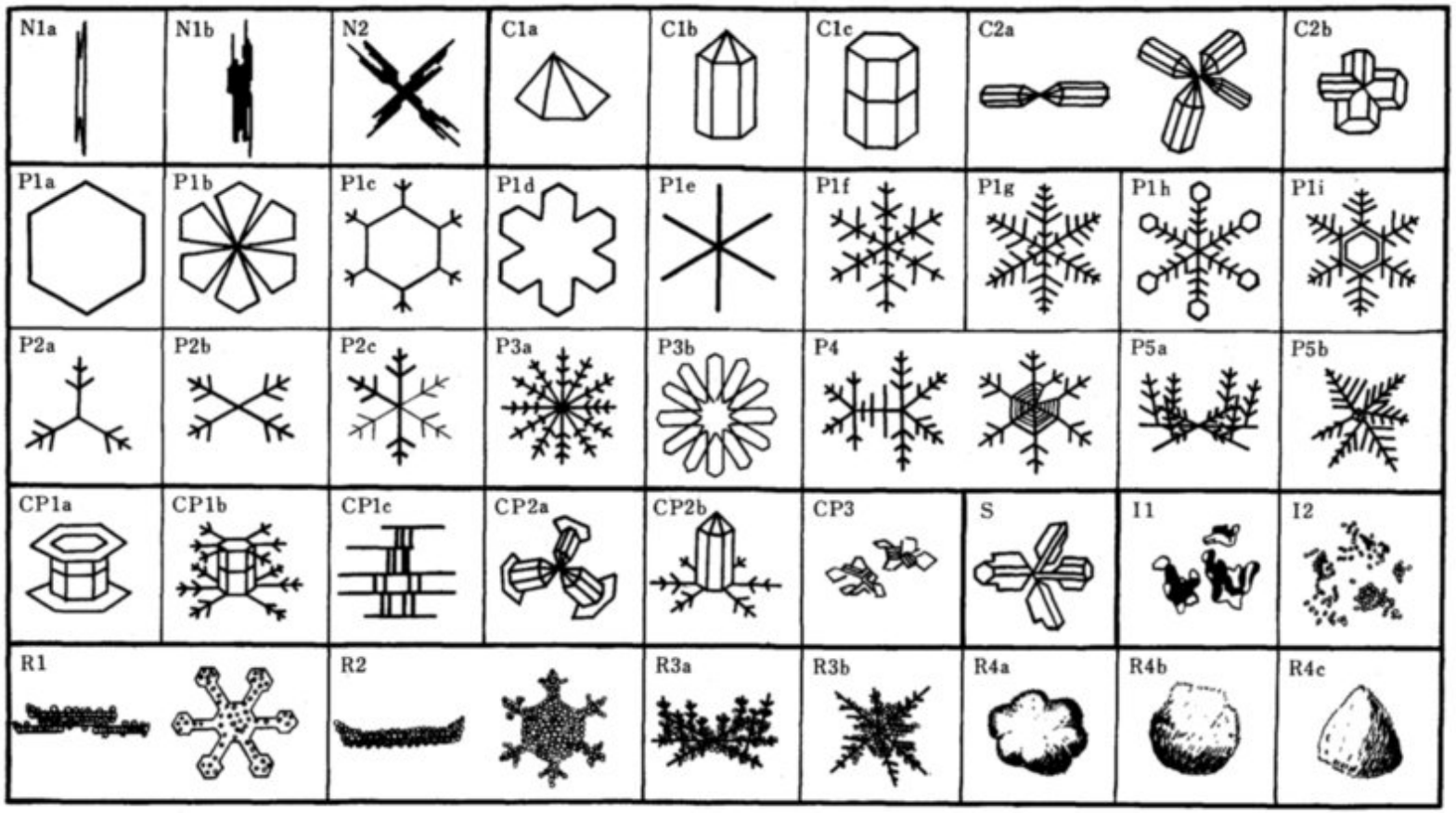


FIG. 197. General classification of snow crystals, sketches.