



## BEHAVIOR ANALYSIS ASSOCIATION OF MICHIGAN

March 25, 1991

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Dear Steve:

On behalf of the BAAM executive committee, I would like to thank you for your excellent keynote address "On-charting Behavior and the World" which you delivered last Friday. The reaction to your talk was very positive by everyone I talked to. In fact, many people kidded me that you are even more into charting and record keeping than I am! They could see why I selected you to be our keynote.



Charting Behavior and the World

22 March 1991

Behavior Analysis Association of Michigan Keynote

GONNA PEAT  
SOME THEMES  
AT YA!

(A) Peat Themes: What I have to say

Huge Cludthunker to Hi-tech Gizmo: ephemeralization  
Doing more with less and less <sup>more to do</sup> <sup>a true wonder tool</sup>

~~Inner behavior by you will help me keep these  
themes straight~~

to my right/ to my left

Background themes:

INFORMATION INCREASING BY MULTIPLYING

Show chart of Anderla

Show chart of scientific progress

COUNTER  
THEMES  
(B)

New Information is resisted

Fundamentalism Quote

(C)

Needs vs. Wants

Dependable transportation vs Laser printer

Repeat Main Theme

Handle information QUICKER and BETTER

Better = See stuff otherwise missed completely

Misssssed Compleeeeeeeetely

Our intake of information can be limited by our processing speed

Maximal accuracy and maximal intake speed will be accomplished  
by standard ...

Clinging to old behaviors will likely prevent

Schematic of People

Skinner - Fuller - Lindsley - Porter

(D)

BF Skinner Quote

(E)

Example 1 Buckminster Fuller

Background on Bucky

Couple of SCC charts w/out explanation

The Dymaxion Earth-Sky-Ocean Map

Globes and maps

Mercator Projection

Fuller Projection

(F)

How you get faster with familiarity

Examples of Data on Map

(G)

Discovery catalyzed by Dymaxion Map

World Game in place of War Games

World Energy Grid

Wealth and units of money

(H)

Example 2. Thomas Malthus

Birth rate increasing by \*; Resources increasing by +



I  
~~II~~

Fuller monitors world data too  
Fuller Quote and charts backing it **Mention Critical Path**  
~~Come back to this with SCC late~~

Switching Gears Closer to Home

J Example 3. Ogden Lindsley  
Basic Contributions

Extended frequency (Celeration)  
Standard Chart for all behavior and behaviors  
\*2 Corner to Corner  
Daily, Weekly, Monthly, Yearly  
Plain Language  
Find words that compel the appropriate interpretation  
Frequency, Celeration, Bounce, Jumps, Turns

K  
Rechart  
Fuller

L  
Extreme Cases

MC  
Whole Words

Crucial for Behavior Analysis **The Heavy Stuff**  
Reinforcement/Punishment not precise enough  
Need new car  
The Categories

N  
b1  
Jumps  
Turns

Example 4. Kathy Porter  
JABA charts recharted on SCC  
Show Original  
Show SCC Rechart

O

Example 5. Charting One's Own World  
Charting "accomplishments" (Tom Gilbert) or products  
Fuller did. Example here recharted on SCC

Professional  
Student SAFMEDS Daily  
Student Grades Yearly  
Student Ratings Yearly

Financial  
Earns salary (YEARLY)  
Pays Bills (MONTHLY)  
Phone  
Electricity  
Gas  
Water  
Credit card

Sports?  
Career Baseball (YEARLY)  
Compare to Cobb and Rose?  
Running  
Cycles on monthly?  
Basketball  
Cycling



Driving?

Ping Pong

Example 6. Finale: The World

Back to Fuller's Quote

Rechart on SCC

Show Charts

REPEAT THEME

TAKE  
IT  
UP



**Describing behavior change  
as increase or decrease  
appears inadequate.**

**"Counterturns" have both  
an increasing and decreasing effect**



**"Science, Technology,  
and Quality  
Require Standards."**

- Ogden Lindsley

**"Care enough to chart!"**

- Ogden Lindsley



**We behavior analysts  
need  
to handle information  
quicker  
and  
more accurately**



**Charting Behavior  
and  
the World**

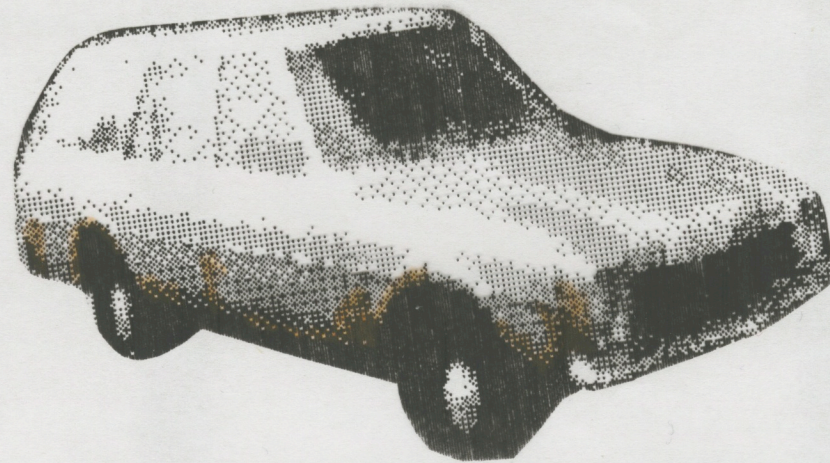
**Stephen A. Graf  
Youngstown State University**



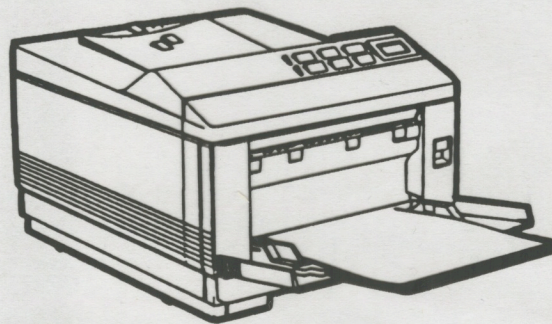
# **Information Increasing by Multiplying**

**How can you keep pace?**





**NEED:** Dependable transportation



**WANT:** Laser printer for computer



# **Fundamentalism**

**Refusal to part with belief  
despite data  
favoring another system**

- **Ignore the data**
  - **Deny the data**
- **Ridicule the data or data-gatherer**



"In choosing rate of <sup>frequency</sup> responding as a basic datum and recording this conveniently in a <sup>SCC</sup> cumulative curve, we make important temporal aspects of behavior visible.

Once this has happened, our scientific practice is reduced to simple looking."

- Skinner, B.F. A case history in scientific method. American Psychologist, 1956, 11, 221-223.



## STANDARD CELERATION™ CHARTS

A standard chart set with:

- Frequencies up the left on 6 cycle X 10 scale.
- Calendar time on bottom synchronized on + scale.
- 8 x 5.25 " grid fits screens.
- 34° angle is doubling each Celeration Period™.

## STRETCH TO FILL CHARTS

Unique chart for each case with:

- Frequencies up the left on + or X scale, truncated and laminated to fill screen.
- Sessions across bottom on + scale, truncated and laminated to fill screen.
- Start at case birthdate, not calendar synched.



### **SCC MONITORING ADVANTAGES**

- Time saving - 2 min / chart.
- Directly see effect quantities.
- Easily project outcome date.
- Compare with other cases.
- Separate jumps from turns.
- Discover variables from:
  - celeration changes.
  - exceptional days.
- Combine cases in meta charts.

### **STFC MONITORING DISADVANTAGES**

- Time consuming - 20 min / chart.
- Cannot see effect quantities.
- Cannot project outcome date.
- Cannot compare progress with other similar cases.
- Variance skewed and not homogenous.
- Cannot combine cases in a collective chart.



**For more information on  
Standard Celeration Charting:**

**The Standard Celeration Society  
P.O. Box 169  
Nonantum, MA 02195**

**The Journal of Precision Teaching  
Center for Individualized Instruction  
Jacksonville State University  
Jacksonville, AL 36265**



**For more information  
on Buckminster Fuller  
or the World Game:**

**The World Game Institute  
3508 Market Street  
Philadelphia, PA 19104  
(215) 387-0220**

**Buckminster Fuller Institute  
1743 South La Cienega Blvd.  
Los Angeles, CA 90035  
(213) 837-7710**



# **Fuller's Dymaxion Map**

**whole planet earth's geography:**

**displayed**

**on one flat surface**

**without any visible distortion**

**in shape or size**

**and**

**without any breaks in its**

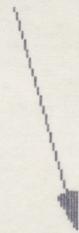
**continental contours**

**one-world island in one-world ocean**



**Database:  
inventory of physical resources of earth,  
behaviors, trends, vital needs, etc.**

**How to make the total world  
work successfully  
for all of humanity**



**The World Game**



# Map Projections

- Mercator
- Polyconic
- Polar azimuthal
- Dymaxion Sky-Ocean

**Most frequently used?**

**4 Problems?**

- Greenland
- N. America
- Antarctica
- 24000 mi. gap



## **Best map of the world?**

**Globe: the bigger the better?**

- the bigger the globe, the less of its surface you can see and read at any one time**



**A world electrical-energy  
network  
grid**

**to**

**Deliver electric energy anywhere  
to anyone at anytime  
at one common rate**

**- Buckminster Fuller**



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## **B. Fuller's Dymaxion Map**

**Nonvisibly distorted,  
one-world-island-in-one-world-ocean,  
90° longitude-meridian backbone,  
north-south oriented,  
sky-ocean  
world map**