

F-TV will allow marine biologists for the first time to view the ocean "as scientists view land with a pair of binoculars."

Eventually, Jaffe hopes F-TV will help marine researchers understand how pollution and natural environmental changes alter the dynamics of marine populations. He's developed a prototype system in a 5,000 gallon fish tank at UCSD and hopes with two years to deploy and test the system at sea.

Briefings, August 1990

BAD FORM

For some it is not a great leap from concern for the utility of maps to a similar concern for visual information in general. The following piece suggests that the design of forms (printed documents with blank spaces for the insertion of requested information) is a problem that demands informed attention.

A pair of researchers just made it official: Americans are being buried beneath an avalanche of poorly designed and often inscrutable forms, letters and notices. The worst offenders? In many cases the government.

"People are being tortured by forms that are written in a language you cannot understand and presented in a way you cannot comprehend," says Carolyn Boccella Bagin, director of the nonprofit Document Design Center at the American Institutes for Research in Washington. "It is a plague."

Bagin and colleague Andrew Rose did a simple survey. They asked the readers of *Modern Maturity* magazine to send in their worst forms and notices. "We were overwhelmed by the response," Bagin says. More than 3,800 readers responded.

Because the readers of *Modern Maturity* tend to be senior citizens, Bagin and Rose received thou-

sands of inscrutable medical forms from hospitals, doctors and commercial insurers. Medicare forms and notices seemed to bring *Modern Maturity* readers to their knees.

Bagin and Rose were also inundated with computer-generated notices and forms mailed by the Social Security Administration and Department of Veterans Affairs, plus assorted phone bills, loan applications, credit card statements, pension amendments and the odd prescription drug warning.

The problems came in all shapes and sizes. A voter registration form containing printed instructions in tiny 4-point type. A notice from the Postal Service, giving postal rates, is in even tinier 3-point type. Very efficient.

Computers seem especially fond of generating letters in all capital letters in single spaced lines that run completely across a page, making reading — let alone comprehension — difficult. Many forms, especially health insurance forms, were printed in green ink on green paper. Or blue ink on blue paper. "Impossible, even in good light, to read," Bagin says.

A credit card application asks — fairly — for credit history. But an applicant is required to supply the name of his or her bank, its address, its phone number and the respondent's bank account number. The space available? A box measuring 1.2 inches by 0.1 inches.

"At first it was funny," Bagin says of the findings, "then it started to seem horrifying." She says some people may get two or three bad notices and forms a week. One woman responded that she received 13 letters from Medicare in one day. "Some people actually try to read and understand this stuff," Bagin says.

Respondents said bad forms made them feel frustrated, confused, angry and intimidated. Many thoughts themselves to

blame. Some failed to file insurance claims because they were too complicated. A few put off needed medical care for fear of the paperwork.

Bagin argues that bad forms cost the taxpayer and business. The Association of Human Resource Development in New York estimates that 28 percent of clerical staff time is wasted due to bad forms.

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cart lab bulletin board

This forum is offered to encourage communication among practitioners at a time of rapid technological transition. Questions, comments, and announcements are invited.

MANIPULATING MAPMAKER MAPS IN FREEHAND 3.0

David DiBiase, Penn State

Say you've mapped U.S. population density by county with *MapMaker*. Now you wish to export the map to a PostScript-based illustration package to customize it and generate process color separations for printing. Aldus *FreeHand* will open a PICT-format file generated by *MapMaker*. But how do you replace *MapMaker's* pattern fills with process color specifications without selecting, ungrouping and editing thousands of closed paths one by one? This note describes a way to edit *MapMaker* fill patterns globally in *FreeHand* 3.0.

In *MapMaker*:

1. Assign a unique black-and-white fill pattern to each data division. Leave no blank (white) categories.

2. In the Map Display Options dialogue box, set **Draw Boundaries As:** to **Polygons**. This is how you get closed (fillable)

PostScript paths in *FreeHand*, instead of a passel of disconnected line segments.

3. In the Base Map Options dialogue box, choose **Fills/Dots Only**. If you skip this step you will get two superimposed maps in *FreeHand*: one with lines and no fills, another with fills and no lines. You need only the fills now. It is easy to add the lines in *FreeHand* without increasing the size of your file (and slowing down the performance of your computer) unnecessarily.

4. Save your *MapMaker* map as a PICT-format file with a unique filename.

In *FreeHand* 3.0:

1. Open the PICT-format file you just created. *FreeHand* automatically converts the PICT file to a new, untitled document. Pattern fills created in *MapMaker* will be preserved in the converted document.

2. Drag a selection box to select all the polygons in the map. Set *FreeHand's* Colors Palette to **Lines**, then choose **Black** in the Colors Palette. This step strokes the closed, filled paths with black lines.

In *FreeHand* 3.0 fill and line attributes are called "styles." Styles are named. Style names appear in a Styles Palette. To assign a style to a drawing element in *FreeHand* you just select the element, then click the style name in the palette. All elements assigned to one style can be modified simultaneously simply by editing the style.

Your goal is to create a named style for each data division of your map. For example, if the data range of one division is 0 to 100, you would create a style in *FreeHand* called "0 to 100." Once you match the style to the fill pattern representing that division in the

imported *MapMaker* map you can easily change the style for all the polygons in that division. Here we go.

3. Double-click on the default style named **Normal** in the Styles Palette to edit the style.

4. In the Styles dialogue box, rename the style to match one of the data divisions of your map.

5. Click the **Fill and Line** button to call up the Fill and Line dialogue box.

6. Choose **Patterned** in the **Fill**: pop-up menu. Choose the *FreeHand* fill pattern that matches the *MapMaker* fill pattern used for the current data division. Close the Fill and Line dialogue box.

At this point you have created one style for one data division. Now let's create the rest.

7. Click to select a polygon whose mapped value falls in another data division.

8. Create a new style by choosing **New** in the Styles Palette menu. The Styles dialogue box will appear.

9. Name the new style for the data division of the selected polygon. The line and fill attributes of the selected polygon will automatically be assigned to the new style.

Create new styles for the remaining data divisions on the map in the same way. After the fill patterns of each division have been assigned to a style, you can change the attributes of all the polygons associated with one style by editing the style from the fill and line dialogue box.

Note: A detailed tutorial on Aldus FreeHand 3.0 is available from the author.

fugitive cartographic literature

Interesting articles about cartographic information often appear in unexpected outlets. The goal of this section is to bring those publications to the attention of our readership. We invite synopses of papers appearing in journals other than those devoted to cartography, geography, and map librarianship.

Wurman, Richard Saul (1989)

Hats. *Design Quarterly* No. 145, pp. 1-33.

Reviewed by Jeffrey C. Patton, University of North Carolina-Greensboro

This entire issue of *Design Quarterly* is a single free flowing guide to the organization and graphic presentation of information. Entitled "Hats," it was written by Richard Saul Wurman, an architect by training, who has devoted much of his career to making visual information more understandable, through such projects as innovative maps, city guidebooks, and Pacific Bell's *Smart Yellow Pages*. It should be of great interest to graphic designers, including cartographers, and to educators.

Wurman utilizes the hat rack as a model of how information can be organized, and to develop the types of relationships existing among information. For the organization of information he states that there are five "ultimate hat racks" upon which all information can be hooked: the alphabet, time, location, continuum or magnitude, and category. Using the analogy of a hat check clerk organizing hats in his care, Wurman shows that hats can be arranged alphabetically (bowler, fedora, sombrero. . .), chronologically (according to the time each hat was given into the clerk's care), by location (manufactured in France, Japan, Egypt. . .), by continuum or magnitude (hat size), or by category (military, with feathers, male, female. . .). The