Images of NCAR:
Two 1994 Outreach Projects

by

Tanya McLendon
University of Colorado

Supervisors: Karon Kelly, Nita Razo

National Center for Atmospheric Research/
University Center for Atmospheric Research
My placement at the National Center for Atmospheric Research under the Summer Employment Program related directly to my major in communication. I worked under Nita Razo of Information Support Services to produce a new set of postcards to be sold to visitors at the Mesa Lab. I also worked on transferring the NCAR audiovisual catalog onto the NCSA Mosaic hypermedia system.

Both jobs required that I talk to a variety of people to get the information that I needed to complete the tasks at hand. I collaborated with NCAR Graphics and Photographics on the postcards and with Quindi Franco, another SEP student, on the Mosaic project.

While doing the projects, I learned that in any field of work communication is vital for success. You need to be able to communicate effectively with your co-workers and with the heads of various departments.

In this paper, I will give a step-by-step account of how I did my projects. I will discuss the methods I used and give the results.

Postcards

Introduction

The first project that I worked on for my summer internship was to produce a new set of postcards to sell at the NCAR Mesa Lab. This project was fun because I got to talk to a lot of people in different departments to get their opinions on which images to select. It was also nice for the people in the various departments because it gave them an opportunity to take a break from their tasks to look at what one person described as "pretty pictures."

This project took some time to complete because there were many steps and many different people involved in the process.

Methods

The methods used in this project we marketing techniques, including a survey to get an idea of what different people would want in a postcard.

According to Gaedeke, author of Marketing in Private and Public Organizations (1977, pg.8), These concepts are generic product
definition, target groups definition, differentiated marketing, customer behavior analysis, differential advantages, multiple marketing tools, integrated marketing planning, continuous marketing feedback, and a marketing audit. Most of these techniques were used to get this project off the ground.

**Generic Product Definition**

Generic product definition is a simple definition of your product. In this case, the postcard can be thought of as a souvenir and something that will reflect NCAR as an institution. When people look at the postcard they are going to think of their visit to NCAR, and the postcard should reflect NCAR in a positive light.

**Target Groups Definition**

A product should always be targeted at a defined group of people. In this case the postcards would be designed for any of the visitors who come into the Mesa Lab.

**Differentiated Marketing**

Differentiated marketing is necessary when there is more than one target group. There are many different visitors to NCAR: scientists, students, and some tourists who have heard about NCAR but don't know exactly what we do. Because there are so many different kinds of people, I worked with Carlye Calvin in the photo department to come up with 12 images that would have a little bit of variety for everyone. The images chosen included scenery shots, deer, the Mesa Lab building, mountains, lightning, and clouds. With this much diversity, there proved to be something for everyone.

**Customer Behavior Analysis**

To determine the behavior and tastes of customers I did a small marketing survey to see which images were popular (Fig. 1). I talked to about 50 people at both the Mesa and Foothills labs to get their opinions. Interestingly, people in the same departments tended to have the same tastes. If they were scientists, they preferred to look at the cloud photos. Nonscientists looked at scenery shots more. Also, men were more apt to pick the same postcards as other men and women had similar tastes to other women. The women tended to look at the softer shots such as the deer, where men looked at more cloud photos. One image that was liked by just about everyone was the lightning shot by David Baumhefner. People also suggested making changes to the postcard itself, including size and subject. I'll discuss that later in the results and conclusion section.
**Differential Advantages**

A differential advantage involves finding one of the most interesting things about your product and exploiting it. In this case we are selling the memory of NCAR in the form of a postcard. The most memorable things about NCAR, judging from the images chosen in our survey, appear to be the building itself and the location.

The NCAR building itself is an architectural masterpiece. Anyone who is interested in architecture will remember NCAR for that and many visitors will want to buy a postcard that has captured their memory of the building.

The location in Boulder, Colorado, could be exploited also. Located just below the Flatirons, the Mesa lab has a terrific view of Boulder and of a lot of wonderful mountains.

**Multiple Marketing Tools**

Multiple marketing tools are the way the public gets to your product. What channels are going to be used to let the public know that it is out there? The way that the public will know about the postcards is that the cards will be on display next to the reception desk in the display case in the Mesa Lab. Anyone walking by can see them and purchase some. The cards could also be sold in a package, like four for $1.50. This way customers are more apt to buy more than just one.

**Integrated Marketing Planning**

Integrated marketing planning deals with how the marketing will be handled over time. All of the NCAR souvenirs should be marketed the same way. Tourists could be given little flyers promoting things that are being offered. With all the souvenirs they could get specials, like buy the architecture brochure and get a postcard for free. This way all of the souvenirs can be incorporated and sold together.

**Continuous Marketing Feedback**

The best way to get continuous marketing feedback is to hand out surveys every few months to see if the visitors are satisfied with the souvenirs that are offered. A short questionnaire could ask questions such as, "Do you think these postcard choices are a good representation of Boulder and of the National Center for Atmospheric Research?"

**Marketing Audit**

Every so often, attention must be given to see if the postcards are outdated. The target market could also change. There could be more
student visits or more staff purchases. When changes occur products need to be adapted.

Results

In the end of this whole process we ended up with four new postcards for the Mesa Lab (Fig. 2).

In response to my marketing survey, I spent a lot of time in the Graphics Department with Justin Kitsutaka working on the actual design and layout of the postcard. We decided to keep the design basically the same as it was before with only a few minor changes. We made the postcard bigger, 3 1/2 inches by 6 instead of 3 by 5. It was made larger so that the pictures would come out more detailed and so there would be more room to write.

We also had to decide on a sale price. I personally thought that 50 cents a postcard was a reasonable price but Nita and I decided to ask people when I showed them the postcards to say how much they would pay for one. Suggested prices varied from as low as 25 cents to $2.00. It also seemed that people in the same departments would pay around the same amount of money for a postcard. The general consensus was the same as my first hunch-50 cents. Since the postcards are only about 35 cents apiece to produce we will come away with a profit.

We decided to print 500 of each of the four postcards. This would be about a two-year supply judging from past sales, and if they sell well then we can print more.

While I was conducting my survey, Karon Kelly was trying to get the funding to actually get the cards printed. On July 22, we were approved for $1,400, and the printing process began.

Conclusions

While working on this project I learned a lot about photos and graphics. I had to spend a lot of time looking at slides, and I learned to tell if one would be good to copy or not. I also had to learn patience. During this project there were a lot of times where I had to hand things over to other people and wait for them to do their part. I was so anxious to have a completed product in my hand that the waiting was the hardest part. While getting the marketing survey from the people around both labs it was also difficult to listen to people voice their opinions without trying to voice my own. I tried to avoid doing that so as not to bias the people who were looking at the pictures. I also tried to let only one person view the pictures at a time, because when people
looked at the images together, they often seemed to influence one another.

**Mosaic**

**Introduction**

"NCSA Mosaic is a distributed hypermedia system designed for information discovery and retrieval over the global Internet" (Andreessen, pg.1). Information has been installed on Mosaic documents by institutions throughout the world and can be accessed by anyone with Mosaic on their computer. Mosaic is an incredibly powerful way to communicate. The goal of this project was to transfer the NCAR audiovisual catalog onto the Mosaic system so that it can be accessed from around the world. The NCAR audiovisual catalog is a collection of slides that we have for sale to educators, publishers, and others with and interest in atmospheric sciences and other topics. These pictures could be used in textbooks, magazines, and pamphlets. Some of the pictures that NCAR carries would be difficult to obtain anywhere else.

**Methods**

In order to work on the Mosaic project, I had to have a basic understanding of how Mosaic works. I read a lot of material on the Mosaic system and on how to use HyperText Markup Language (HTML). This language makes it possible to write documents in Mosaic. When using the HTML format, you have to work with a lot of codes to make the things that you want appear on the screen. This process involves a lot of memorization of codes and formatting.

One unique aspect of Mosaic is its ability to form links between two or more documents. You can link your document with any other document on the network. This makes the documents easier to follow and less cluttered. For this project, we had to form many different links in order to get all of the information to fit properly and still be readable. We had long lists of slides that the NCAR audiovisuals catalog offers. In order to put all of these into Mosaic, and to still make our document readable, we had to break it up into separate links.

Another interesting aspect of Mosaic is that you can put images up on the system. I was amazed at the accuracy and the clarity of the photos on the Mosaic system. The pictures make Mosaic more enjoyable.
to go through because they give the reader a break from just looking at words. We spent quite a bit of time looking at images that would show up well on the Mosaic system. We also wanted to show pictures of some of the slides that NCAR offers so that the reader knows what is available. There are seventeen categories of slides. These include aviation, clouds, weather phenomena, and pictures of NCAR and its people. We showed one picture from each category and then listed the rest on a separate document that was linked to the first.

Sound bites can also be put on the Mosaic system. These get linked into an audio document and all the reader has to do to access the sound is to click on an icon with the cursor. The audio helps to break up the monotony of all the words as well as to make some instructions clearer. A document can include music samples, animated voice clips, or a spoken introduction, which is what we used.

For this project we had to do a lot of brainstorming to see which method of putting the project on the computer would be easiest to follow and easiest to read. If it was too difficult the reader might decide that it wasn't worth it and quit. This would result in losing a customer.

**Results**

In this project we put the NCAR audiovisual catalog on the Mosaic program and made it accessible to the world. We came out with a clear document that was easy to read and that was visually exciting. This is just one more way that NCAR can communicate with the rest of the world.

**Conclusions**

I found it difficult to grasp the concept of the HTML format for programming. Since I am a communications major, my computer skills are very limited. Luckily, I collaborated with Quindi Franco on this project and he knew the basics of the HTML format. Most of my job consisted of layout design. Although this was an often times confusing project, I learned that with patience, even someone with basic computer skills, can help to design a program that can be accessed around the world.