



THE GRASS ROOTS



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EXAMINING A WINNER... *The Grass Roots, Step By Step*

By Diane M. Behncke

Being recognized by one's peers is always one of the best ways to boost your ego. It is also one of the best ways to help others in your field. For the last four years, Monroe Miller and *The Grassroots* have been tools of learning that many have looked toward for guidance. Starting out modestly, *The Grassroots* has grown to an award-winning publication, earning high honors for the last three years across the United States. This is due mainly to the writing expertise and journalistic flair for words by its editor, Monroe Miller. He does get help, though, and he goes right to the authorities on whatever subject it is that he means to get across. Dr. Gayle Worf, Russ Weisenthal and Bob Lohmann are only a few of the people he receives regular articles from, on everything from putting greens to weed control to equipment.

But it's not only the content that helps bring top honors to the W.G.C.S.A. The concept involved in the design holds your interest and creates the finished product the reader wants to see. Part of that reason is due to the efforts of Monroe, constantly searching the newspapers, magazines and publications for new and innovative ideas; the other part of that reason is the efforts put forth by many of the employees at Kramer Printing. To paraphrase a customer of Kramer's, "It seems like magic, how I bring in the idea I want, describe it to you, you take that idea, and magically a blank sheet of paper is printed with just what I was looking for."

I suppose it does seem like magic to someone who's never seen the steps in the printing process, and exactly what is involved in producing something as detailed as *The Grassroots*. Herein lies the reason for this article. Hopefully after reading this article, you'll have some idea as to what happens when you bring in the concept, and a printer makes it happen.

Much of the reason for the success of *The Grassroots* is in its coordination. Monroe starts putting together the next newsletter as soon as the current issue is published. He brings down each article, with pictures if provided, and a design is established. Monroe works mainly with the Art Director, Denise Suchomel. She has taken the articles, added her own flair and your interest is peaked, and you'll want to read cover to cover.



Editor, Monroe Miller, explains the articles and layout of the "Grass Roots."



Art Director, Denise Suchomel, pastes up an article for "Grass Roots."

Denise and Monroe work together to lay out the articles in a logical order, considering color and content. After the design is decided on, Nancy Stenz typesets the copy on Kramer's most recent equipment change - the MCS8400. It may sound like the newest line of tractor or mower, but it's actually one of the most recent innovations by Compugraphic Corporation. The MCS8400 is like a typewriter and computer all in one. It can take typewritten copy and typeset it from 5 points high (about 1/16" tall) to 72 points high (about 3/4" tall). Using computer discs, Nancy can change typestyles with the touch of a button. With the touch of another button, she can expand or condenses

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Leading the team as Art Director of Kramer's Graphic Arts Department is Denise Suhomel.



Working on Kramer's newest acquisition, Sherri Livernash typesets copy on an IBM PCXT to be transferred to the MCS8400 later.



Nancy Stenz typesets copy for "The Grass Roots" on the Compugraphic MCS8400.

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it, cause it to become italic or oblique. Speeds of 90 words per minute are much easier than on a regular typewriter, as the "touch" is much faster. Another new piece of typesetting equipment for Kramer is the IBM PC-XT. Using "desk-top publishing", longer articles can be typeset on a disc to be transferred at a later date, or complicated forms can be drawn exactly as they will appear in their finished form. Sherri Livernash is chiefly responsible for this end of the typesetting process. For someone who has not been in the printing business, this latest slew of changes has been like switching from black and white TV to full color. In the recent past, forms were designed in the mind of the typesetter, and through the use of long lines of coded messages like "LL4500F1LS120SZ10-", a form was put together line by line. Now, Sherri can type in a few keystrokes in answer to prompts by the computer program, and draw boxes, reverse out areas, add screens, blow up or reduce copy, or just plain typeset copy.

After the copy has been typeset, it is printed out on long strips of chemically treated typesetting paper. It is then run through a waxer to apply a thin coating of hot wax to the back of the typeset copy. This allows the copy to stick to a pasteup board where placed, or lifted back off the board, and moved to a different place without having to reset copy or tear the typesetting. So often, in the past, pasteup artists used rubber cement to stick typeset copy to pasteup boards. If you've ever done any model assembly like model airplanes, cars, etc., then I'm sure you've gotten $\frac{3}{4}$ of the way through, only to find that a piece was attached to the wrong side, and tried to pull it off, only to have it break into two pieces. Well, that's very much like what used to happen to pasteup artists. Once a piece of type was laid down, it was very difficult to remove, and if laid down slightly crooked, it often went unnoticed.

Once the information has been laid out into the pages, they are added to the ads, and the final page count is taken. The final count must be a multiple of 4. If you look at any newsletter or magazine that has been stapled on its spine, if you take the staples out, you will find that there are four pages to each sheet in the piece. This 4-page piece is called a "signature" in printer's terms. These signatures are laid out in a "dummy". This is a miniature version of the actual newsletter. After the typesetting and pasteup has been completed, the artboards are sent to the Camera/Stripping department.

There, the pasteups are shot as negatives. These are very similar to the negatives you get when you shoot pictures with a camera. They are created on film, and developed in a processor. The pasteup boards are taped together into 4-page spreads called "flats". *The Grassroots* is printed 4 pages at a time, and then backed up with the next consecutive page for each of the four pages on the first side. When a negative is shot, it creates a "reverse" image, where everything that was black is now clear, and everything that was white is now black. This way, a plate can be burned so that only the clear areas show through to the plate, and the image of the type is reproduced onto the plate for printing.

It sounds very simple, but it is actually quite complicated at this step. The negatives have to allow for "reversed" copy - where the finished printed product has white letters with a black background around them. The negative will look like most of the pasteups at this point, with the letters being black, and the background being clear. The negative also has to allow for halftones. Photos shot from a camera are called continuous tone photos. This is something that a printer cannot reproduce. He must change the "continuous tone" to a "halftone". The photo is placed on the copyboard of the camera, flipped forward to be focused through the lens, and a piece of film is attached by suction to the vacuum frame. A screen is laid over it to allow the photo to be turned into dots. You may have heard your printer talking about 85-line screens, 133-line screens, or 150-line screens. What you are hearing is how many rows of dots are in one inch of space, thus "133-line screen" means that this particular screen has 133 rows of dots in 1" of space. By the intensity of the light, and by using a yellow light for "flash", a camera operator can create a halftone from a regular photo. What is sometimes more difficult, is shooting a halftone from a colored photo, or one that has already been printed. In each instance, there are complications. The camera can only "see" certain colors. For example, red is seen as black, so a photo that has a lot of red and black in it will print very dark, as the camera cannot tell the difference between the two colors. On the opposite end of the scale, the camera can't "see" yellow or light green or light blue at all. So, if there was a logo or something you wanted reproduced, a special filter must be used to "cheat" the camera into believing it is not seeing green, but rather,

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Don Dixon sets up the camera to shoot a halftone appearing in "The Grass Roots."



Jim Allhands works at laying the halftones in to the flat for Ransome's 4 page inside spread.



Caught in the midst of an estimate, President Todd Tiefenthaler takes a moment to smile for the camera.

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using a red filter, the green becomes brown, and the camera can now pick up the color. As well, if a photo has already been printed, another printer has turned that "continuous tone" photo into a halftone already. If the new printer isn't careful, he will get what is called a "Moray". The dot structure isn't compatible with what has already been produced, and instead of a halftone, he ends up with a wraped looking, fuzzy-edged finished product. He must use a special gauge to determine the direction of the initial screen, turn his screen to just the right degree of angle, and then shoot his new halftone, called a "rescreened halftone".

Even screens and color have to be reckoned with in the Camera/Stripping department. Remembering that the pages need to be laid out into "flats", the stripper must divide the copy into three areas: line copy, halftones and screens. Each one must be laid out in a separate flat. Then, when color is to be added, that, too must be laid out in a separate flat. All in all, a single page of copy could easily have five or six flats to it, just to get the finished product.

After all the flats have been laid out, proofs are "burned". A proofing material is laid in a vacuum frame, and the flat is laid out on top of it, emulsion down. This is a term you may have heard your printer or art director or agency use to describe how the printer needed your "camera-ready art". What is being requested is a procedure for shooting the negative. A piece of film has two

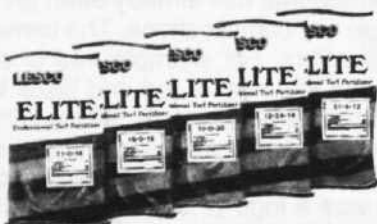
sides: the acetate itself, and the chemicals that have been applied to one side of it, that when exposed to light and developed in certain chemistry, will produce a printable image. This chemically treated side is the emulsion side. A printer needs to print from negatives that are "emulsion down" because he must place the negative, laid out in a flat on to a metal plate. Just the difference of the acetate in the film can change the contact of negative to plate, and change the finished image from the desired crisp, sharp copy to a fuzzy, blurred image that is unreadable. The vacuum frame removes the air above, below and between the flat and the metal plate. A light source is directed at this flat/plate combination for a pre-determined amount of time, causing the image to transfer from the negative to the plate.

The plate is what is mounted onto the press on large cylinders. The plate is plated in one end of the press, ink is added at the top. Through a series of ink and water rollers, a delicate balance of ink and water is transferred to the plate, which, in turn, is transferred to a "blanket". This blanket, mounted on another cylinder rotates around to a sheet of paper, travelling through the press, and the printed image is created.

Presses come in many sizes and variations. They can be small or large, can print one or more colors at a time, and even one or two sides at a time! The press that *The Grassroots* runs on is a Fugi. It can print up to 19"x 26" stock, and can print either two colors at once, or two sides at the same time, called "perfecting".

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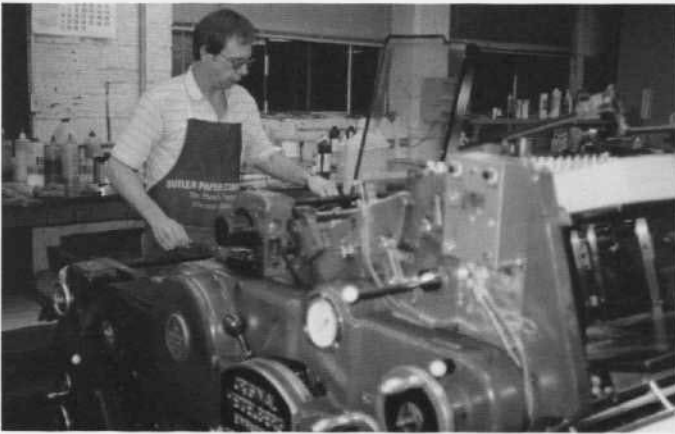
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Tim Harrington runs the one-color signatures on the Heidelberg KORD.



One of the signatures lays ready on the tech-table of the folder.

Now that we have *The Grassroots* printed, it is still unable to be read or mailed. What we have is large printed sheets, 17½" x 23" in length and width, with four pages of copy on them that have no bearing on each other. A flat will have pages 1, 48, 3 and 45 on it. If one was to try to read an article over a number of pages, he would probably be looking at 2 or 3 different stacks of printed sheets to read the entire article, from beginning to end.

After the printing is done, the flats have 4 pages of copy on one side, and 4 different pages of copy on the back. At this point, this 8-page piece is called a signature. A signature is any full-size finished printed piece of stock. You have probably heard your printer talk about a four-page signature, or an 8-page signature, or even a 16-page signature. The number of pages to the signature are determined by the size of the page, and the size of the press running the pages.

The Grassroots is done in a series of 8-page signatures. These signatures, after printing, are taken to the folder to be folded into quarters.

The 8-page folded signatures are then gathered into the finished book. The pages are then stapled on the folded edge. In printer's terms, it is stitched. Dating back to the older machines, string was used more often than metal; these machines actually collated and sewed the books together. Many larger books that require much handling are still sewn and glued in a similar method. Although we now use staples, it is still referred to as "collating and stitching".

After the book has been assembled and stitched, it still can't be read front to back. Although the pages are in the correct order, the signatures were 8-page signatures, folded in quarters. So, each signature is still folded at the top

of the book. Only the first and fourth page of each signature is able to be read after the stitching is done, so another operation is in order.

The finished books are taken to the cutter. Kramer uses a Polar computerized cutter to trim *The Grassroots*. First, the dimensions are programmed into the cutter, one by one to trim the top, side and bottom. Then, depending on the thickness of the book, 3 to 10 books can be placed into the cutter at one time to be trimmed.

Once the trimming is done, the finished book is taken to the mailing department at Kramer Printing. There, labels are attached, and the magazine is sorted into zip code order. It is then taken to the Post Office to be mailed to your waiting hands.

Then, the process starts all over for the next issue. As you can tell from all the newsletters you receive in your mail, some put in a lot more effort than others. As far as Kramer Printing is concerned, we feel that *The Grassroots* is one of the best publications we do, for both content and appeal. Monroe gives us free reign to throw in our own artistic talents to help give the magazine a greater appeal. We hope that this effort has not gone unnoticed. From the ad responses Monroe has been getting, his advertisers must see the benefits of such a fine publication, as it is widely seen, and has been displayed as an award-winning effort.

As a final note, this author owes a debt of gratitude to Monroe for his dedication and understanding. In my past years of work on *The Grassroots* I have seen it grow into much more than just an informational piece for Golf Course Superintendents. It is a guide for all editors of newsletters in any field to strive for. Congratulations, Monroe, from a loyal fan.

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Two of the 8-page signatures for the Grass Roots lay drying after all colors have been "laid down," and are waiting to be folded.

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Editor's Note: "The Grass Roots" had its beginning four years ago, when Monroe came into Kramer Printing with an idea. Developed with Nell Stace, the 6 time per year newsletter took its initial form. Since then, it has been designed and developed with Monroe through Diane Behncke, and most recently Denise Suchomel. A special credit to those in stripping include: Don Dixon, Jim Allhands, and Bob Benzmiller. Special credit to those in press include: Tim Harrington and Rich Pokriefke. Special credit to those in bindary include: Charlie Schneeberg, Jon Hayes, Marilyn Knabach and Tom Ribarchek. Last, but not least, a special "thanks" to Larry Haack who coordinates and "rides herd" on the Grass Roots through all the steps.



The two-head stitcher staples the booklet together before the final trim is taken.



Kramer's computerized Polar cutter takes the final trim off the finished product and "voila" the Grass Roots is completed.



Folder operator, Jon Hayes runs one of the 8-page signatures through the folder in preparation for collating, stitching and trimming.

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