

YOUNGSTOWN STATE UNIVERSITY  
ORAL HISTORY PROGRAM  
History of Salem Printing

Short Description of a Print Shop,  
Daily Business Operation

O.H. 84

HERMAN LINDER

Interviewed

by

Donald Bennett

on

December 8, 1974

HERMAN W. LINDER

Herman W. Linder was born in Salem, Ohio, on May 25, 1924, the son of Mike and Matilda Linder. He graduated from high school and joined the United States armed forces. When he was discharged in 1945, Mr. Linder pursued a career in printing. His first printing job was at Lyle Printing, where he was involved in a program covered by the GI Bill. He stayed with this program for about three years, at which time he became employed by Dodge Printing as manager of the shop.

After working for Dodge Printing Company for three or four years, Mr. Linder joined his brother-in-law to form their own shop, Wright Printing. After leaving Wright Printing to the ownership and management of his brother, Mr. Linder then became re-employed by Lyle Printing in 1959, where he is still employed now as the General Manager.

Herman and his wife, Gwendolyn, are the parents of four children: Gayla, age 21; Robin, age 20; Herman Jr., age 16; and Patricia, age 11. They are members of the Emmanuel Lutheran Church.

Mr. Linder's hobbies are golf and tropical fish.

ELIZABETH A. REITZEL  
August 17, 1978

YOUNGSTOWN STATE UNIVERSITY

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SUBJECT: Short description of a print shop, daily business operation.

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BENNETT: This interview is between Herman Linder of Lyle Printing, the general manager of Lyle Printing, and Don Bennett of the Youngstown State University Oral History Program.

Mr. Linder, what was your background, schooling or preparation for your occupation as a printer?

LINDER: When I got out of the service in 1945 the war wasn't over in Japan yet. I didn't have to go over there so I was re-employed in an Air Force print shop. After I was discharged, I pursued this career. My first job at printing as a civilian was here where I'm now employed at Lyle Printing. I was under the GI bill there. I worked at Lyle Printing under that program for about three years. After that a couple of the fellows who worked there broke away and started their own print shop known as Dodge Publishing. Shortly afterward, they asked me to come out and work for them. I guess my knowledge of printing came pretty easily to me because in a short time I was managing their shop for them.

I went off the GI bill at that time. I continued to work for these people because they did the same type of work I did before. Basically, the printing industry is farm-related work, especially with the dairy industry. I had my own plant after working here at Dodge Publishing

Company. I worked and had Ohio Holsteins, Pennsylvania Holsteins, Ohio Jersey, the Dairymen's Price Recorder, things of this nature; all very related publications, along with general commercial work. After three or four years of this I went with my brother-in-law to the death of a person in town who had a printing shop by the name of Wright Printing. I worked for the estate about a year, then part time after that. We were then able to purchase this print shop. That's my brother-in-law, Vincent Moore. The print shop is still active and is doing printing right now. My brother-in-law and I were together for three or four years. We built a nice little business out of it, but the partnership as such didn't work out. So, since he was a printer, it was easier for me to find a job.

He was in the tool and die business and that kind of work is slow, so we made a gentleman's agreement out of things, and he bought me out. I'm now employed as a typesetter and pressman, which I was for a few years. After that time the production superintendent died unexpectedly and I moved into his position. This has been my position for the past ten years, being general manager running Farm and Dairy and Commercial Printing at Lyle Printing and Publishing Company.

B: From your background, you have an adequate knowledge of the machinery. Could you give a brief, detailed description of the machinery used in a print shop?

L: Well, there are all types of printing done today. Basically our shop and the Farm and Dairy is like any printed newspaper. It is set up in what we call letter press printing. It's all done by typesetting the hot type method. All the metal is melted and remelted and it goes into the machines and the machines read out the table. Type is all remelted after it's set on the lynotype machine. It's all made up by hand and you're working with hot type, a material that we call slugs. We don't have the flexibility that they have in offset and the endletter process. This is the reason a lot of new papers have gone to the offset type of printing, because of the flexibility. It costs more, but as a rule with the offset they found out that you get more product for your money and you put out a better product. So, it's worth putting more money into it.

Basically our shop is a hot type metal plant where the newspaper is printed. The commercial presses are printed directly from type. The type that comes off the machine is put on the presses,

made up into forms and printed directly from type. Back in the newspaper end we do the roll mats of pages. These mats are baked out into curvature forms into a hot metal casting system and casted into curved plates. The lead press which the Farm and Dairy is printed on is where these plates are put. We can print 32 pages of tabloid size at one time. Whenever a paper happens to be longer than 32 pages, we have to make a double run and insert it by hand.

B: You're talking about the Farm and Dairy and this work you've always been in. Could you explain what type of newspaper Farm and Dairy is?

L: Farm and Dairy has been in existence for a little over sixty years. Up until we had this catastrophe down here, we've never missed a publication. The roof fell in due to the snowstorm we had and we missed our first publication in sixty years, but the paper itself is geared to the farm-related industries. It has been this type of paper for the past sixty years, which accounts for the name of it (Farm and Dairy).

Your farm machinery dealers advertise in it and a lot of hardware type stores advertise in it. You'll find there's a tremendous amount of advertisements. We've built up a reputation of advertising public sales in our Farm and Dairy. In any one week, we've had as many as eighty sales published at the same time. Our average, I'll have to say for the year is about fifty sales per week, give or take a few in the tri-state area in a fifty mile radius. Not one probably misses our paper. They tend to be as big a thing as with people buying their antiques. I think this is the main reason people attend public sales, because a lot of people are getting bargains on antiques.

B: You stated that you are just a weekly paper. How do you go about the production of this paper?

L: Our paper is mailed. We print 19,000 copies and we mail almost 18,000. Paid subscriptions, 18,000, a little better. This is how our paper is put out on the market, through the post office.

B: What is the average time of making up one of these weekly papers?

L: We put it in the mail on Wednesday afternoon. Thursday, while people are receiving their papers, we are working on various stages of the next week's paper. On the lynotypes, we're

setting the news matter. We have people around hustling getting their add copies in. We don't have the equipment like the daily paper has, where we can do it in two or three days or one day. Particularly newspapers have to do it all in one day, but they don't put out the size paper that we do. It takes us about a week to go through the transition from one thing to the next. We have people getting their ads in and people getting engravings made for the various pictures that have to be in. We have to buy all the typesettings, go through the typesetting machines, and they have to be put together by hand. We have a fairly large section of classified advertising; like four or five pages of classified are in our paper. These have to be set in two days. We allow our customers to bring them in in two days, and on our first run it's been a long time since we haven't had to add an insert in our paper. The insert is made up of eight to twenty-four pages. The insert has to be made up Friday, Saturday and Monday because it has to be sent to press by Monday afternoon. Our insert is finished up Monday evening or Tuesday morning, at the latest. Then we generally proceed with the rest of the paper and have it ready for press, which is a 32-page run. The main run is always 32 pages. This goes on the press Tuesday afternoon. We run Tuesday night and all day Wednesday, and while we're running they're getting ready for mailing.

- B: Would you say that the paper is a basic part of Lyle Printing business?
- L: Yes, the paper is definitely the biggest part of Farm and Dairy; it's the hub of the organization. For some reason we would have problems with some part of Farm and Dairy if we had an offset department. We have some people who may finish up their jobs, and who are not ready to participate in Farm and Dairy as such because we haven't gotten to their stage of the thing yet. Everybody drops whatever they're doing, if we happen to be running late, and puts all their effort into Farm and Dairy so we can meet all the deadlines.
- B: What other types of printing business do you do at Lyle Printing besides the weekly paper?
- L: On the same site that Farm and Dairy is printed, we have commercial printing; we have a Mehieley vertical press, a Heidelberg platten press, open job press and also the large 22 x 34 number two Kelley press. These are all presses that print either hot type or other press methods. On the bigger press we print our smaller publications, such as 8½ x 11 magazines, prayerbooks, union books and things of this nature,

and flat books where the pages are made out. We run maybe 16 or 32 pages at one time. These are put in a folder, folded up and made into a book. This is our letter press printing.

We have on the other side our new addition. It's been there about seven years now, the offset printing. The printing is completely different from the letter press, where the photography method is used in making plates. You can take almost anything that's legible other than something written in blue or anything light, or any type of written stuff that may be right off the typewriter. Whatever the camera can "see" we can put on a plate and print it. This is the offset method. Of course we have a lot of what we call computerized system movement in the system where we punch tape, so you don't use the hot method. The girls will sit there at the verityper keyboard, and they type what they're told to type. The sizes are marked; they hit the key and they tell the machine what to do. The typesetting machine, the photo-composer, we just run tape into that and as long as everything is running right it comes out on a piece of film, already developed. All we have to do is cut it apart and lay it into whatever form we're making, take a picture of it, and we're in plate form for the presses.

- B: When you're typing do you have a certain width that you always type in this operation?
- L: As far as Farm and Dairy is concerned and especially because we have our ad width of one or two columns, ninety-nine percent of all of our news and our classifieds are what we call eight-twelve. Eight points is the size, twelve is the length of the line. We designate whether we want light face or dark for the same thing.
- B: Do you have any set amount of the paper that is for advertising and the news, or do you just put it out as it is needed?
- L: We get ad people and have deadlines for them. They start selling; their closing date on the paper is Monday noon. They usually hang around the shop especially Monday and Tuesday to make sure that everything they've turned out to us is okay, because we still have to set all this material. If we have any questions about the material, we want the person who sold the ad around to ask him. Then about Tuesday afternoon, Wednesday afternoon, specifically, I'd have to say, they go around and start selling advertising for the next week's newspaper. Or they had repeats. Maybe the week before they sold an ad

on a repeat basis and they've turned out to do that again. Anyhow, we let them sell ads until Monday at noon. At Monday noon we see how many inches of advertising they have sold and we know how many inches to put on a page, which is divided by a certain number that we go by. The number of inches that these people have sold tells us how big our paper is going to be. We have to go in multiples of four. If they went out and sold 31 pages of paper, we have to go to 32. If they sell 33, we have to go to 36. Either they go out and try to sell some more ads or we get more news in.

B: How many ad people do you have working for you?

L: Three full time, plus Mr. Darling who does it on a part time basis. I just totaled this up here not long ago because we're putting a check on ways and in which direction ads are coming. The ad people whom we have have selling display advertising sell about half of what comes in the door and by phone calls. Last time it was for the sake of selling something it was a little over 2000 inches when I had the check. I think the ad people sold 1100 inches and a little over a thousand is what came in the door in phone calls. Really you can say we have an awful time when the ads come in, which we do.

B: What area does your advertising usually carry from the county or tri-state. . .

L: Yes, our people go west as far as Canton, Minerva, Carolton, and in this area they'll hit up in Ravenna; North they'll go into Youngstown, North Jackson, Austintown, swing down around Palestine, Columbiana, Liverpool, Lisbon; it's about a twenty-five mile radius that we hit pretty good. Then occasionally, like once a month, they get the longer type territories. These areas are called on every week and also phone contacts are made.

B: You mentioned earlier that the roof collapsed and you were now shipping your paper out. Is this creating a problem or not?

L: Yes, the transition is creating a problem, but we're getting through it. This is something we knew we were probably going to get into sooner or later. Some of our equipment down at that building is starting to become outdated and we hate to put good money into old equipment; when you update at this rate, you still have yourself an old piece of equipment if you want to look at it that way. We knew this time was coming ahead of us, but we just weren't quite prepared for it right



this minute. One day we go one way and then we go the next way. Whereas the other way we would have normally taken two or three months' time to space ourselves. It's not creating a hardship as such. Just one issue was affected because that was the issue in process when the roof blew down the day we were printing. It was just our next issue coming up. The paper was printed down in Lisbon at Buckeye Publishing.

B: The method that you're using now since this changeover is the offset, correct? Do you feel this will be the coming type of printing for weekly papers?

L: There's some controversy on it. The offset method costs more, and one of the reasons we haven't gotten into it is because of the initial cost of the equipment. Being weekly, we'd have to put out a lot of weekly papers to recoup our original investment. I look for the owner of the shop to stay with this method. Now whether he'll buy a press or whether he'll continue to farm it out will be up to him. I personally think he'll maintain the way we are and we'll update the equipment that we have now, rather than get new equipment, and have to retrain our personnel to continue in the offset method of newspaper publication.

B: What's the advantage?

L: You can do more with your advertising than when you're doing it in hot type. You can't bend it, you can't do much with it; everything's horizontal or vertical. In the offset print you pull proofs through everything. Then you can take a pair of scissors and cut the line out, bend it and turn it upside down or anything you want to do with it. Plus the clarity of the pictures is an advantage. On the letter press, we use a 65 line screen. These screens have been used for years and people in letter press still use them. In offset we can do a 133 line screen. It produces pictures fifty percent better. You don't have to worry about having a dirty metal. If you have a dirty metal, it'll give you a bad face on your type and on the reproduction. If you have cold type going through, you get what we call a cold piece of reproduction, whereas in the offset method, as I said before, you can always pretty much show. It's up to you the way you're going to photograph the paper. If you want to go first class, you can have first class proof for everything. The camera won't give you on the plate what you don't want the camera to see.

B: What type cameras do you use in your offset method?

- L: They're all vertical and horizontal cameras. We use Robertsons, Kodaks, and all the brand names put out. We're going to have to have a camera to take a 19 x 25 sheet of film paper and transfer that film onto the printing plate. We don't have this equipment here now. We have this part of it printed out right now, but this is eventually what we'll use it for. We have smaller cameras which we do this same type of work for our commercial printing, but our size is limited there to 8½ x 11 for the small presses, and we need 17 x 22 plates for our larger offset commercial work. We have to ship those out, too.
- B: But eventually you will have a camera that will shoot a whole page?
- L: I would imagine when we get through here we'll probably furnish this print shop, which is now going to print our paper, with negatives as such. We will control the quality of it ourselves. If we send stuff down there that's not quite up to snuff and these people get it, they won't have time to do any extra work on it because they have to put it in plate form and throw it on the press and print it. Whereas if we get it into the negative form and put it on a light table and see that a particular negative is not quite good enough, we can do some touch up work on it ourselves before we send it in.
- B: How does an average day at your print shop generally start out?
- L: Do you mean for myself or the general picture?
- B: Both.
- L: I generally walk through the shop. The crew leaves a half hour before I do. It's part of my job to go around and check the status of all the work load that's been done before 4:30. I'm there until 5:00, and when I leave I pretty much know the status of the work that's been accomplished that day. I know where to start the next day. I usually go through the Farm and Dairy side first, making sure there are no problems there. I make sure they aren't waiting for ad people to come through with something. I also make sure they aren't waiting for the editor to come in and lay out his end of the dummy papers laying around with ads already put in the pages, and make sure they're not waiting for the editor to come around and put in the news. They may not know that he's down in Columbus or

on a field trip interviewing somebody. So, we have to put news in ourselves. This kind of thing I have to look for everyday. I also go through the commercial end of things, check the jobs over, look at the dates on them, make sure that the pressmen and the typesetters are keeping up the work. We have a good bunch of people and my job's pretty easy.

B: How many people do you have working under you?

L: Approximately twenty. On Farm and Dairy day when the mailing ladies come in we add another five to seven, depending upon how big the mailing is. They work Tuesday night and Wednesday on this. But the all day, everyday crew is about twenty.

B: Is this five days a week?

L: Yes, plus we've worked almost every Saturday. There's already a few typesetting on Farm and Dairy, almost every Saturday morning. Monday and Tuesday nights as far as Farm and Dairy is concerned, certain people are on the job.

B: Do you work at night?

L: Every Monday and Tuesday night we work in there.

B: Now, is this on different shifts?

L: No, it's the same staff working overtime.

B: So you have a long Monday and Tuesday?

L: Depending on how the advertising is brought in to us. Some days you might work until 4:30, the normal quitting time for the people, or you may be there until 6:00 or 6:30. If you're late, you may go out for a supper break and come in and have three or four hours to go. So they'll take a break and go back and work until 9:00 or 10:00.

B: Since you've been in the printing industry, what have been the big changes?

L: Well, it has to be the transition of the newspapers from the letter press printing to the offset method. The union has taken over and regulated the type work done in a print shop. We have not taken up with the unions, but in the union shops that I have seen in newspaper work, the people can't jump

around from one department to another like we can do. The work also goes slower, therefore we don't have to lay anybody off. Daily newspapers that are unionized, where people can't go from the typesetting job into the stereotype printing, or can't go into the camera room, and they can't go into the bindery; they have one job. If that job doesn't call for a full time job, these people are layed off; the union can't switch them from one department to another the way the boys are going to do, I guess. But basically I'd have to say that the transition over the past twenty years has gone to the offset method of printing. There are some print shops that are going back to the letter press method because they're finding out that with the cost of offset, they just don't have a big enough business volume to offset that initial cost. There are some things that are easy to set by setting up the hot peg machine, such as classifieds. We printed our paper offset here seven or eight years ago. We tried this, but we didn't get too far. Instead of doing that, we went out and located a few offset papers that had been converted. Classified ads are very repetitious. It's a lot easier to make corrections this way. On the offset type, for a one-letter change, you have to make a whole offset plate. In the letter plate you just have to set one line.

B: From the production end today, can you find any change in the workers?

L: I don't know who you would say is chastised in this respect because, yes, I've noticed an awful big change in the calibre of people that we have received in our phase of printing. There could be other shops without any problems, but I've had many. I've had four people, two retired gentlemen, who worked until they were sixty-seven. I had a couple who were good but left for better job reasons. I have never replaced any one of these four with the calibre of people that I lost. I'm not knocking today's youth as such because some of them are not used to it. They come out of shops, for example, they may have come out of the union shop and they're not used to jumping from one job to another. I've had some of these who come in half a day and drop work and they have no concern whatsoever except for payday. I've had my share of them and I just dread to think that we might have to hire some more. Once in a while you get some good ones, you don't know; you can't judge a person till you have him in the shop. But with the calibre of people that we've had in here in the past years, especially because of the two older ones that have retired, I'm working more right now than I ever have. My personal and

physical abilities are going into that shop more than before the roof collapsed. I put more physical ability into working with apprentices and helpers because they won't do the rest of the work. They are told to run a press and that's all they're going to run because the press only runs two days a week. They won't do the related work that goes with it.

- B: What you're saying, in essence, is that the people who have been in the business for twenty or thirty years are able to switch and go to different jobs but the younger people today are not willing to do this? Could you tell me a reason why?
- L: I think most of them come out of big factories like Lordstown. One person came out of Lordstown and a big factory in Cleveland, where they were very strongly unionized. The safety aspect of everything was very strict. They won't touch a thing if they think there's any danger whatsoever involved in it. If it comes to lifting anything over thirty pounds, they'll want help for it. I'm probably exaggerating a little bit here, but these guys won't touch stuff that a sixty-six year old man would do. Personally, I found this in two people. I'm not knocking everybody, but this has been my particular problem.
- B: Do you get many people from apprentice programs?
- L: No, this is one thing I wish we did have because the graphic arts in my mind is the second or third largest industry in the country today because everything you've got on your person or body, or looked at; some type of printing is involved in it. Some type of printing, whether it's matches or boxes, or cloth. They're all printed. It's hard to get people into the graphic arts field because of the low pay, I'd have to say. In your bigger cities they probably do have an apprenticeship program being subsidized by the unions for this type of thing. Here, in Salem, I suppose you could talk with Dave Smith. I've talked with him many times about setting up a graphic arts course. He'd love to, but he can't get the printer to go along with it because they have to hire these people on an on-the-job basis when you start a program. They just can't get the printer to go along with it. But now you do have the vocational schools coming along. In Alliance I guess they have a terrific print shop over there. This will probably feed our industry in time.
- B: Do you feel there is a need for starting the apprentice programs back up strongly?

- L: My personal opinion is that there is a need for it. I've been in the business since 1945. I've never been layed off a day in my life. I've never associated with anybody as such who had been layed off because of lack of work. I'm not saying that some guys, some shops didn't get a big load of work. I'm thinking of one now where they did have to hire extra help and they did have that job for two or three years. They lost this particular contract and they had to lay off. But basically it's an old established print shop. They only layed off the ones that they had hired for this job. I've never lost a day's work through layoffs. Farm and Dairy went through the last depression. In sixty years we never missed an issue. They went through the thirties, as I understand not working a forty hour week, but working thirty-six.
- B: Would you say then that the printing industry as a basis of employment is one of the areas that there is stable employment the year around?
- L: Definitely yes.
- B: Do you think any of the newer methods, the offset methods, faster production, might make a change in a weekly type operation?
- L: I think the newer methods won't change our weekly type things. It could, but I doubt that it will. The newer methods of printing are the photosetting, typepunching and electronic type work. You get into a better calibre of workers in this area. It calls for a higher calibre individual to run this type of equipment. In the letterpress equipment, my job is such that you could teach a dummy to be a printer. Whereas if a guy has a certain amount of knowledge working with electronic things, and if he has not any foresight into electronics at all, I don't think you could train him without sending him to school first. In the letterpress, you can almost get anybody off the street, and in two or three years' time make a printer out of them.
- B: Do they still have the apprentice program, the apprentice, the journeyman; could you explain this?
- L: They have this in certain areas, but not around here. I worked under the GI bill and they had an apprenticeship program where I'm working now. We came in; there were three of us at the time. We worked six months setting type in one position, putting out a composition pad. In six months we went back in

the press room where we worked. This was the way it was for three or four years on the apprenticeship program. This is how I got to get more knowledge of the printing industry than the average printer would get because of going through the shop. Then being head of my own shop and being a shop foreman very early, earlier than the average person would, I had access to moving around all over the shop and picking up bindery equipment and all related equipment. There's a lot of bindery equipment in the commercial end of it.

- B: I notice around Salem that there are a lot of small shops, and you mentioned you had a shop. Could you explain the typical operation for this type of shop?
- L: Well, the small shop that I had, the original name of the small shop that I had was Wright Printing Service. Wright happened to be the man's name, not just the word with the 'r'; it was his name. We maintained that name and our main activity was printing letterheads, envelopes, shop forms, office forms, invoices, business cards, sales slips; anything that could be done by hand. This was basically what we call a small printing shop. At that time it was done by getting the type out of the drawers, letter by letter.
- B: This is the old method? Do you feel that this type shop will continue to be in existence?
- L: I think it will be in existence to the point that the people can now buy lynotype cheaply. I think there's always going to be somebody to sit there and take type out of the drawers. I know two people right now that are quitting their jobs and setting up a little print shop in their home. These people now can have a small press, 10 inches by 15 inches, the Heidelberg especially. It was a little flat letterpress, they could get in there a small offset press, what we call a multilith. They have both methods of printing and two small presses. Whoever gets involved could make himself a nice little business as long as he's known and does a good job.
- B: Since starting this research into the printing business in Salem, I've noticed that all the printers in Salem know each other, is there sort of an underground?
- L: There is a camaraderie among printers, yes. I think you'll find out that probably the ones you're thinking of have been in business in the forty to sixty year category. If our newspaper had problems, we would go to the Salem News and they may

either solve our problem or have some equipment or material that we need. As far as the newspapers are concerned, we work together and find news and problems. At the commercial end of things, somebody may have a special job done on special papers; I myself worked in two other print shops before I came here, and I know what their method of printing is. I know that he may specialize more in one area than we do, but every once in a while we do some of that work. Rather than go out and buy a little bit of this and that, I'll go to him and borrow supplies.

B: What do you feel in the future will be the type operations of printing? Any great changes?

L: I don't see any big changes as far as printing goes, no. The boss just came back from Chicago and from what I can gather from the material that he brought back, they're just sophisticating the type of equipment that is now in existence. But, they're making it bigger, making it do a better register job, more color work you can run through. More color is really putting down four colors, one right after the other. You go through and put a yellow print down and use the same negative in the same plates, the angles on the dot pattern, put the blue, red, and blacks down and you come up with a four color print. It's a sophisticated newspaper process.

B: Now is this in the hot print or the offset?

L: This is in the offset. You can do it in the letter press printing but this is in the area where the offset is, with the letter press printer because of the higher quality of work.

B: Could you explain again just how you get, I understand that it is a plate, but how you can get four different colors.

L: They have four different plates. When you get a job for any photograph which is done in color and printed and such, you have to have a color transparency to start with. They've got filters on a camera, then they project the picture up on a screen and filter out the basic four colors; yellow, green, blue, and black. They filter out all but one color and make a printing plate. That prints that color and they do that with the other three colors. These have to be put on a single cylinder on the press. Some presses are made to do two colors at one time; some can do all four at one time. Basically it's just on a press stuck right behind another one with a feeding system that goes from one press right on to the other one, without having to take them off and go put them on by hand like the



old method used to be. You can print the same way on a single power press. What they do is run a paper, print one color, go at the other end of the press, bring it around to the back, clean up the press, put the other plate on and rerun through it. Whereas with these color combinations, it's just one pass through the press which puts the four colors down. These are done via the screen method. All photos that you see printed have a screen on them. You can't see the screen because you'd need a magnifying glass. On any printed picture, any printed piece you'll see dots; dots comprise the picture. It can be anywhere as I said before, a 65 line screen in the older papers to a 133 or 150 line screen in good quality printing. The higher the screen, the more dots per inch and the higher quality work you get. These dots, these screens, have so many dots per square inch.

- B: Up at school we have a duplicating machine which simply takes a piece of paper and duplicates that piece of paper. Is this similar to the offset?
- L: It's similar to offset, but I think you're probably cutting a stencil, then you put the stencil on. Is this a press that you're putting a stencil on or not?
- B: No, a light runs through.
- L: Well, they're making a copy called a paper plate. Yes, this is the offset printing method. This is the cheaper method for short run work. Where somebody comes in, we have a quick service down here. It's not as much now because we've built our trade up so much that our quick service, instead of ten minutes, may be two hours or two days. We did have a quick printing service. People could bring stuff in already printed and all we did was photograph it on an 8½ by 11 typed sheet and within five to ten minutes we could have a hundred copies out, simply by putting on a plate drip. If you eliminate the camera as such, you have no negative so you just put your copy in there against the printing plate and it transfers. Then you just take your paper plate and throw it on the press and it's good for, depending on who the pressman is, how he runs the press and how good the copy is and how many impressions you get from that original color, from one hundred to five thousand. You could get up to five thousand copies.
- B: Do you feel that these IBM or 3M type machines are going to cut into your business?
- L: I don't think they'll cut into it as such; I think we're going to use them. Many people are not in this, especially a

print shop of any size. They're almost getting forced into it simply because of the quality of work that you can put out with this type of equipment. We have a certain amount of this now, but with this new method we're going, we just don't have the business to necessitate it. They have copy machines where you put a copy in and push a button. Every time you want a copy, you push the button. You put the paper back in for another shot. 3M and people like this have a copy now where you can set your copy in there and punch the button. If you want 500 copies, the sheet sits there and puts out 500. You don't have to put the paper in 500 times.

- B: But they can't produce color yet, these offset duplicating machines?
- L: I have never seen them, but it won't surprise me the day I do see one. They can take color pictures and come out with a pretty decent black and white without color, but there again you're working with a camera, even with these copy machines. You're working basically with a camera type set up. These things will sometimes see blue better than a normal camera will. Blue is one of the worst colors for cameras to see. I've had some of these copy machines where they might take blue up and lose green.
- B: You can't foresee in the future, though, going back to the hot type?
- L: We won't go back to it as far as the newspaper is concerned. But we will maintain a hot system because of the commercial end of things. In the commercial end of printing we can print envelopes and small business cards, numbering and perforating which this type of equipment does that the offset equipment can't do. It does it, but you have to have all kinds of attachments. We have the type of system there where we almost need both types of equipment. But as far as the farm paper is concerned, I'm looking for us to be 85 to 90 percent cold type.
- B: Do you feel that it's profitable to go out and try to get commercial printing?
- L: Yes. I'd have to say of our business volume down there that one-third of it is commercial.
- B: Are there any set guidelines for setting up? If I'd want to come in and get something printed up, would you have a certain rate for jobs?

- L: Yes. There's so much, like on photo setting stuff. It's five dollars for the first hundred and a dollar for each hundred after that, for 8½ by 11 typed copies. It's so much for five hundred number ten envelopes and five hundred 8½ by 11 letterheads. One may cross for a circulation member, say thirteen for fourteen dollars for the five hundred letterheads and only twenty or twenty-one dollars for a thousand. The more you get, the more the unit cost will go down. These are just some of my things. I have pricing catalogues there that I use, which are computerized type catalogues made up by computerized type people we buy in a service. All I have to do is go to these sections, know my papers, know how much paper costs, and I can pretty much use this to price any job there is to be printed by knowing how to use the book.
- B: Do you set up a certain amount that you consider that you must have as profit from these jobs, or is that figured by the computer?
- L: That's figured by the book system, right. I mean, all I have to know is how much the paper costs. You're supposed to have the type of equipment, which we do have. If you have the older equipment then your profits will be down. The more sophisticated and the faster you can print, the more your profit margin goes up. I think basically most print shops are competitive and issue prices by using this book.
- B: What is the average profit in an average print shop job?
- L: It's hard to say. I'd have to say that it could go anywhere from a third to a half of its total. It depends upon what's involved in a job.

We do a lot of repetitious work. If it's repetitious you just get the old plates out and charge a different price. If the guy's a real good customer, probably the second time around you knock something off, then you maintain that particular price. Under present day situations, nothing is getting any cheaper. Paper's way out of line. I think the printing industry is harder hit than anybody else in the country because of the availability and the price of paper.

- B: Could you give a brief rundown of costs ten to fifteen years ago and costs today?
- L: We were talking about that specifically every day. We talk about it every day, but I was talking about our paper to the people who are going to print it now. We were paying nine, ten,

and eleven cents before we quit this one particular setup because she went out of business. A lady ran it. We call it roll newsprint firm for our printing, she went out of business and we had to switch. I think we were paying twelve cents a pound for it. The people that we're going to deal with are paying about twelve cents a pound for it. The last two years we've been paying anywhere from sixteen to nineteen cents a pound for our paper.

Newsprint cost has gone up tremendously. The normal price for the big users has jumped in the past five years from eight to nine cents a pound up to twelve and thirteen cents a pound, almost double. For us it's more than doubling. On one load we paid nineteen cents a pound, just to get it. We couldn't find it anyplace else. We had to buy what we could get. I don't like to say it, but I'm pretty sure there's black market paper and they're just sitting on it because they know there's somebody in our boat that will come around and buy it. The mills are making what they want to make. If you're not in with a mill, like we aren't, although we should be but we haven't yet, we're getting on one now; we're not on the list of a mill and we're just scrimping and scraping. There's an outfit in Cleveland which buys damaged rolls from train wrecks. They go around and buy this paper, rewind it; and by rewinding it the ends are split off where the rolls are damaged. The man rewinds them and splits them down to our size. These could be big 55" rolls. He trims them down to 34", which is our size, 17" which is half size, and this is the way we've been getting our paper for the past two years. In the commercial end of things, envelopes used to be ten years ago maybe four or five dollars a thousand, now they range anywhere from nine to twelve dollars a thousand. This is in two to five years, not ten years.

B: What's the reason for the rapid jump?

L: I think that it's the same thing that the paper mills are doing to the creditors that the Arabs do with the gas, they hang on to it. Then they get the price they want to get out of it. If you're willing to pay the price, the paper is available. Canada's giving us trouble, they're sitting on it.

B: You can't say it's a shortage of materials?

L: No, I don't think it's a shortage of materials. They're trying to say it is, but I don't think it is. There has been a slight shortage of paper probably, but I think the mills could have over compensated for it because these mills nowadays are

really sophisticated when it comes to rebuilding their forests. I've seen Weyerhaeuser on television and things like this. They can build a forest in six or seven years, cut that forest and make paper out of it already. They use all those inbred and hybrid woods. It's hard for me to believe that there's a paper shortage. They say there is, but I don't believe them, because anytime I run short of something I shop around and if I'm willing to pay the price I've got it.

B: So you're saying there's an open market for paper. Then, when you need it, there's another market where you can get anything.

L: With the basic materials, the cheaper paper, they put less pulp and cheaper fibers into it. They wouldn't bleach it out as such. We've been buying that over the past few years. It's good enough for form work. There was one time they would throw it away, but now you can't buy it anymore. That's what they're making the most money on. They're making you buy the better papers. I wouldn't be afraid of that if I could knock that paper down, soak it and take it apart. Then it would still give me the kind of paper I was using before.

B: Could you explain about the watermarks and the pounds?

L: These are put in right at the mill. The paper is ninety percent water. Understanding how our paper is made is fantastic; to see how it is formed. I've been to a couple of paper mills and I could watch as the paper was ground from wood, chipped down from small chips, then ground into plasterboard. It looks like walls, like boards before it ends up at the paper mill, simply for the convenience of shipping. It's crushed down. Then it's resoaked, rewetted down in big vats. To start with it's all white, but if you're making yellow paper they put yellow dye in the big vats that are turning. This is where the colors are put in.

Sulfites, the cheaper paper and the rag forms, they are the better ones. It depends on what kind of paper you're making, as to what kind of wood is in it. Each fiber, every piece of paper you've got, if you tear it off, you'll see the fibers in it. That paper at one time is nothing but those fibers that you see, nothing but fibers floating around in water. This water is slowly moving up to a great big round drum, a great big dandyroll drum, and the fibers just lay on that drum. It's heated, and these fibers start criss-crossing one another and they start becoming interwoven with one another as they hit that drum roll. Depending how long the

fibers are, depending how good the paper is, you get a better sheet. In a cheaper sheet the fibers are short. Newsprint is naturally the cheapest paper that can be made. This goes through a paper mill where there is an air drying system from one end to the other. They go twenty-four hours a day, most of them, and the water marks are put right in.

Paper that has watermarks, you get this on a good grade of letterhead. If you hold it up to the light you'll see the name on it. It's put on right at the start of the paper before the fibers are dried out. It's a printing method, the dandyroll method. They have drums and that name on the smaller drum is going real fast over the great big drum and becoming imprinted on the paper.

B: You talk about rag paper and the higher quality papers. Are these made out of cloth?

L: They're basically cotton and wood. They are called rag. I don't know how they developed the name rag. Probably the man who developed the better paper, because it was made from cotton; I would imagine that's where the name originated. Rag is just a higher quality of pine, maple, or oak. Every company has its own brand, or how they determine qualities. I should know this; I have a book which would tell me what the rag paper is made of as opposed to the cheaper kind. But it's surprising that it's wood that has a longer fiber, gives a better quality, bleaches out better, and stays whiter longer. If you file this paper away, it'll stay whiter longer.

B: You talked about different woods. I thought most paper was made out of soft woods.

L: They use hard woods. This is where the better papers come from. There are a lot of papers made called "cover quality". For example, menu covers where you need a real hard cover. I don't think as a rule that these mills are mostly soft wood mills, simply because the breaking down of hard woods costs more to do. There's not such a demand for that. Usually some big mill has a small subsidiary someplace as a throwback, which somebody keeps around for a tax writeoff. Or, somebody's dad may have started that particular mill, so he took over the shop a few years ago. It was in the family, so they're going to keep it going. I went through a mill here where they had pen ruling. Pen ruling is unheard of in these days. These are statements. If you ever get a bill that has red or blue lines underneath the bill head, this is the kind of stuff you don't see much of anymore. There's one mill that has it because it was one of the first pieces of equipment in that

mill so they still use it. It looks like an old spinning wheel system.

B: Do you foresee that there will be any substitute for paper in the printing business? Are they contemplating any changes because of the rise in the price of paper?

L: I have never heard anything of it, no. There's a lot of printing done on material other than paper itself. For example, in town we have label printers who will print on various amounts of different types of paper; cellophanes, wax papers and things like this, and especially treated paper, which is basically labels. People wouldn't believe a thing could be put on these types of papers and stay on it without smearing or rubbing off. They also print on metal, and the way synthetics are made nowadays it doesn't surprise me that someday we'll have synthetic methods of printing, though I haven't heard of it as such yet.

B: In your years of working in the printing business, can you remember any amusing incidents or events that occurred?

L: There was one. It was funny at the time, but it could have been disastrous. Before we lost the shop we had sky lights over the roof; they decided to cover the skylights up, took the glass out and just covered them up with wood and finished them with plasterboard.

One of the guys was bragging about how strong the skylights were, because we didn't really like them. We wanted the natural light in there. He went out at dinner time and must have drank a bit for lunch that day instead of eating. He went up on the roof to show us how strong that thing was and fell down through it, right on top of the press. Fortunately, the press wasn't running. It seemed funny as heck standing around there watching when all of a sudden a leg came flying down through the roof. Half of us didn't even know he was up there, because he was only talking to two or three others. I don't know, for some reason it was comical, yet it wasn't that comical. It was just funny as heck to see a guy come flying down through the roof.

B: Can you remember your most unusual job at Lyle Printing?

L: At Lyle Printing, I'd have to say we do run of the mill printing, but the most unusual job that I've ever done was when I did my first four color letterpress job. This event

during the time I had my own little print shop. The offset method wasn't quite as well known as it is now. He was in the church calendar printing business. I'd never printed any four color work at that point. I'd done two color register type printing, but never any four color work. I still remember the time that it took me to do that work. This was something I had never done before. Paper stretches if you don't have the right atmospheric conditions, and if you print this paper and allow it to sit from one day to the next, the paper will stretch. It will shrink from the top, then when you put your second plate on you can't register other colors. If this happens, you really have to put your abilities to work and try to salvage the job. One of the big advantages of modern day four color process printing is that the work passes once through the press. Then there's nothing to worry about.

B: Can you remember any mistakes that you've made or errors in large jobs?

L: One happened when I was assisting an apprentice. It happened back when Mr. Demeirs was still running the shop. He had some trouble because we had some late developments at the time. There's no liquor or cigarettes or any of this type of advertising allowed in the paper. It's a pretty clean thing as far as advertising goes. If anybody let something slip through involving tobacco or liquor or carnivals, if it got to the post office before they told us about it, all the papers had to be brought back from the post office, opened up and blocked out by hand. Now this was an amusing incident to me, but somebody did this because he was mad at his boss.

B: Mr. Darling was that strict?

L: He still is. In today's paper, if you pick it up you won't find liquor or any of that type advertising in it.

B: Could you state the effect of inflation on the printing industry, other than its effect on paper?

L: I would have to say inflation for us at the print shop came in the 1940's. We don't pay what you call top scale but we darn near guarantee a 44 to 48 hour work week. I try to guarantee it even where there is no work. I try to look at it in such a way that we have the type of business in which we have to compete with the small printer. We have to keep our prices down, maybe even lower than below what they should be, so that's why our people aren't paid top scale. This is



where I think inflation has really hit. It's costing the boys who work for me the same for a quart of milk and a loaf of bread as men who are making five and six dollars an hour, and these guys are only making four dollars an hour. So I try to compensate for it by giving them more work. I try to create more of a work load, make my people go out and sell more to create overtime, and put on extra shifts. I found out you get a better class of people that way. If you get into the unionized shops you have to pay each guy top wages, and even then they will organize to get more money. Not that I'm against unions, it's just the principle. In our shop we'd have to hire too many more people to do the job. There would be too many cases where I would not have enough work for one category. People would be getting layed off. They realize this. They have no trouble following anybody who's trying to organize a shop. They know what our situation is. We're pretty lenient. They get most benefits like the guys at other shops. Maybe they aren't making top wages now, but if they stick it out there for twenty years there could be twenty or thirty thousand dollars in a nest egg for them when they retire, things like this. The union shops don't have leading benefits, they have a union retirement fund.

B: I can't think of anything else, can you think of anything else on which you'd like to comment?

L: No, I enjoy my work very much. If I didn't, I wouldn't have been in it for 25 to 30 years. I enjoy being with people; I enjoy working with people. I've had some ups and downs and things of this nature. I took the Dale Carnegie course and I think this has helped me tremendously. A lot of people joke about this thing, but I think this particular course taught me how to handle people. At the time I took it, I had only had this job as general foreman for a year, six months. I took this course and I think I had a start from then to handle people, especially when new people come in. You have to know just what kind of person a guy is that you've got in, so you know how to treat him. You can get more work by treating a certain individual one way and another person another way. I handle everybody as an individual with their own personality and I try to treat them as such. I seldom get people together as a group to talk to, rather than as a group at a party or something. I go through the shop and I don't say anything to anybody, I usually wait until the individuals are by themselves. It's job related, nothing personal, work or just normal conversation. I found out I can find more out about this person than somebody else. I do a lot of speaking otherwise on other subjects, and I found some things I like to do, some I don't.

Some things I do because people help me and I try to help other people.

B: Do you have anything else to say?

L: I can't think of anything more now, I'd be repetitious if I did start talking more.

B: I think you've covered about everything.

End of Interview