A VISIT TO ZEISS

Some months ago Carl Zeiss Company decided to market their own products themselves rather than through contractual arrangements with independent distributors. A pilot project to advertise and market only their sunglass lines was organized for Germany. The Zeiss line of sunglass frames were advertized in the mass media with the added slogan "to see your optician". In short the plan was to market them only through the optical profession.

Zeiss directors decided to expand the project. The program has already been instituted in Great Britain. It is expected that the project will begin in the United States and Canada this spring. Consequently, Zeiss management decided to extend an invitation to the optometric and optical press from Canada and U.S.A. to attend a symposium on their products and visit their various production facilities.

The editor of the *Canadian Journal of Optometry* was among those to receive an invitation as a representative of the optometric press in Canada. Mr. Garry Owens, Past-President of the Ontario Association of Dispensing Opticians, represented organized opticianry. The third member of the Canadian delegation was Mr. Mark Hertz, general manager of Carl Zeiss Canada Ltd.

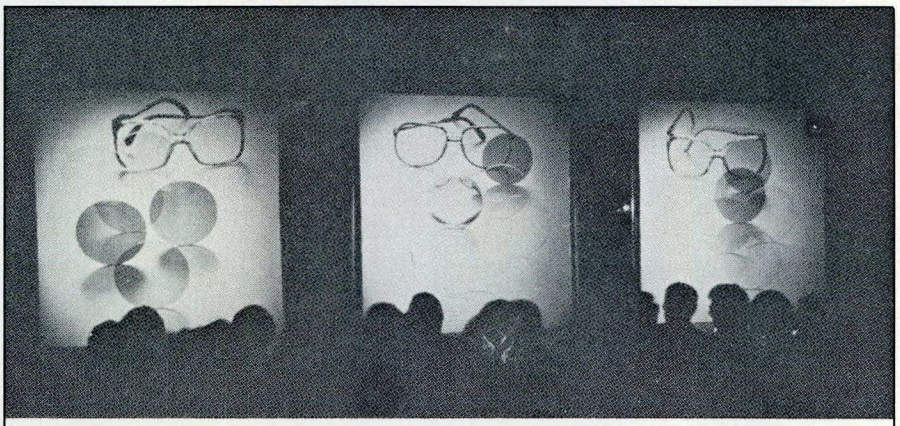
Several editors of well-known American optometric publications were unable to accept due to prior commitments. The U.S. delegation consisted of two Zeiss representatives and eight editors or publishers: Martin Topaz, publisher of *Optometric Monthly;* Margaret Dowaliby, professor of ophthalmic optics, Southern California School of Optometry and author of two books on optics and dispensing; Miss Lynn Faught, editor of $^{20}/_{20}$ magazine — a publication directed at the optical industry in general; Miss Alice Soder, editor of *Eye Talk* — a new publication directed to ophthalmic assistants and aides; Leo Robert, Manager of Advisory Enterprises Inc., publishers of *Optometric Management, Contact Lens Forum, 20/20* magazine and *Eye Talk* magazine. In addition there were two representatives of fashion magazines.

Departure was from New York with a stop-over in London, during which the 1980 Zeiss collection of sunglasses was introduced at a fashion show. Some 300 English optometrists and opticians attended the show which, incidentally, was an excellent production.

If any criticism could be mentioned it would be a lack of emphasis on the frames themselves. It was a theme presentation of glasses for the beach, for driving, for sport, for casual wear but the lighting effects did not play up the head and face of the participants sufficiently to enhance the frames. The dress and choreographic movements of the models drew more attention than the frames. From a strict theatrical point of view the fashion show was a superb presentation and it would have missed its objective of highlighting the collection had we not been able to view the entire 1980 line in the adjoining salon.

All in all the purpose of the evening was attained — an impressive introduction of attractive frames that practitioners would not likely omit or forget when dispensing sunglasses.

Our next destination was Stuttgart, where the afternoon was spent at Marwitz Hauser inspecting and discussing optyl frame production. The final quality of any product can be no better than the quality of the ingredients used and of the workmanship involved. Marwitz Hauser



An attentive audience watches the slide show

One of the several discussion sessions: (front row) Gary Owens, Toronto; (second row) Michael Teitelman, Zeiss, New York; Leo Roberts, Advisory Enterprises Inc.; Dr. Maurice Belanger, Editor, CJO; Martin Topaz, Publisher, Optometric Monthly; (third row) Dr. Margaret Dowaliby, Southern California College of Optometry; Martha Foley, Editor, Town & Country; Lynn Faught, Editor, 20/20; (fourth row) Mr. W. Bononi, Production Mgr. Marwitz & Hauser; Mr. S. Kessler, President, Zeiss USA; (fifth row) Mark Hertz, Zeiss Canada; and J. Fresz, G. Gasparek, G. Bechstein, Marwitz & Hauser.

is quite aware of this principle and applies it vigorously. Quality control of the basic ingredient is routine as is careful mixing with step by step inspections in the manufacturing process. This inspection covers not only the optyl material but also the moulds used to shape the different frame designs. Optyl frames are not injection moulded under pressure but the material is drawn into the moulds by an ingenious vacuum method. This technique produces frames with a minimum amount of internal stresses and strains. Temples are formed by the same manner of vacuum suction. Hinges are no longer polymerized into the frames and temples as a separate step of manufacture but are cast in place in the moulds thus providing sturdier and more durable construction.

The moulds with the optyl material are then passed through a tempering oven which causes polymerization of the resin and hardener. Upon removal of the fronts and temples from the moulds excess material is cleaned away and the frames are placed in an annealing oven where they assume their final shape. Subsequently the lens grooves are machined and the pads are milled. After a final deburring, frames are returned to the oven where any remaining internal stresses are removed through heat and the resiliency of the optyl.

The inspection tour was followed by a discussion in which it was pointed out that Zeiss frames are aimed at three distinct groups of consumers: the conservative-minded, the up-to-date types, and the high fashion trend setters.

Plating process being explained, (l to r): G. Owens; G. Gasparek; P. Simon, Editor, Gentleman's Quarterly; W. Muelberger, host, C. Zeiss, Aalen; A. Soder, editor, Eye Talk; L. Roberts; M. Topaz; J. Fresz; L. Faught; M. Foley; M. Belanger.

Our next tour took us to the Marwitz Hauser metal frame factory. Here again, inspection of primary materials is important. For this visitor, who is familiar with precision tooling and machine shop and gauge inspection, it was evident from the tooling and gigs used in the plant that frame production must now be considered to be in a class of high technology.

Materials must be corrosion resistant, malleable, elastic or rigid, have sufficient hardness and tensile strength to perform the job intended. Such qualities are achieved by the use of suitable alloys made from combinations of the following metals: gold, silver, copper, rhodium, palladium, chrome, ruthenium, titanium, nickel and beryllium. Some of these metals when not in alloy form are used for plating to obtain specific colours, for example ruthenium for a gun metal effect.

Aluminium in alloy form can be machined easily and shaped for decorations or more usually for metal temples. Colours are obtained by an anodizing process which serves as a protection against corrosion. Plastic trim for metal zyl frames, lens rims temple covers, plastic bridges and nose pads are made from acetate material. Some frames are also made from acetate but chassis are milled out of flat sheets and not stamped. This guarantees the shape and size of the frames and reduces any internal stress and variations in rim thickness and size resulting from a stamping process.

Upon completion of the tours, we were joined by several directors and production managers to discuss manufacturing details and criteria for evaluating metal frames. For the clinician perhaps two checks can be suggested:

a) Rigidity and elasticity of the eye wires to resist deformation by pressure,
b) The resistance of the whole frame to deformation by pulling the temples apart and allowing them to return to their original shape, or as close as possible.

During our time in Germany we also visited the Zeiss telescope laboratory at Oberkoken. Arriving somewhat late we were unable to see

L to R: L. Roberts, A. Soder (hidden), M. Foley, P. Simon, L. Weyer, M. Belanger, G. Gasparek, G. Owens, W. Muelberger, L. Faught, M. Dowaliby.

work proceeding on a 3.5 metre telescope lens destined for an observatory in the Pyrennees Mountains. The massive lens required 18 months of controlled cooling to avoid cracks and has already had 12 months of hand polishing. A laser ray is used to measure the accuracy of the polishing.

We also saw many of the specialized optical instruments being produced in other Zeiss labs including a computer-assisted infra-red surveyor's transit with a three-mile range, aerial cameras and photogrammetry equipment and a host of microscopes including an electron-microscope able to photographically record cellular mitosis at fixed intervals.

Another day saw us taken to Aalen to visit the Zeiss lens plant. Dr. Dowaliby, Gary Owens and myself were joined by Mr. Brandt, the production manager, to discuss lens types, performance and production standards. Mr. Brandt had set up samples of every type of lens made at Aalen or produced for Zeiss by other large lens makers.

I was most impressed by the back surface fused bifocal segments and the existence of a prism segment bifocal similar to the old Panoptik. The quality and tolerances of cataract lenses was also to be noted. The wide variety of both plastic and glass multifocal types was outstanding compared to the minimal selection to be had in North America. The trend to plastic lenses in the U.S.A. and to a lesser extent in Canada may have a detrimental effect upon this selection when Zeiss begins operations on this side of the Atlantic. However, recent changes in ANSI standards may favour a return to a wider use of glass lenses.

As we prepared to depart from Aalen for the long trip home to North America, Martin Topaz acted as the group's spokesman and thanked Zeiss for a most informative and entertaining week. The generosity and hospitality of the Zeiss organization was outstanding and deeply appreciated by all, and the technical education was most valuable indeed.

MOBILE OPTOMETRIC UNIT IN N.B.

The New Brunswick Optometrical Society has begun working with the Lions Club in an attempt to provide greater vision care service to New Brunswickers. The Society approached the lions in early February with the suggestion that they donate a Mobile Unit and the response was favourable. The purpose of the van would be to screen school children and to provide complete service to institutionalized senior citizens. This project would depend upon cooperation from the Department of Health in covering operating costs as well as a contribution from the Lions.

All Lions Clubs in the province have been asked to donate $1,000.

OCCUPATIONAL VISION CONFERENCE ATTRACTS 250

The Quebec optometrist's association (APOQ) sponsored a multidisiplinary conference April 26 entitled "The Worker—Vision and Safety" which attracted 250 delegates to hear discussion on an impressive array of topics.

Some of the featured speakers were: Dr. Yves La Casse from Montreal's Santa Cabrini Hospital speaking on Toxicology, Mr. Jean-Louis Bertrand, Vice-President for Prevention with Quebec's Health & Safety Commission, speaking on the implications of Quebec's new occupational safety law, Mr. Luc Des-Noyers of the University of Quebec at Montreal on eye protection in the work place, Dr. Pierre Simonet, of the School of Optometry at the University of Montreal, Dr. Jean Belanger, an optometrist from Montreal and Dr. Emil Boudreau, Director of Safety for the Quebec Federation of Labourers (FTQ), on the need for new ophthalmic standards. In addition, representatives attended from various health and safety associations and unions. Several news conferences were held during the conference resulting in good news coverage.

The Alberta Optometric Association is also planning a similar conference in the near future.

Optometry school will train residents*

To get better instructors for its clinics, the University of Waterloo's optometry school will start a new program in September to train recent graduates how to teach.

The program, called an optometric residency, provides clinical teaching education and training in a special area of the field. About 10 students are expected to enrol this fall.

The two-year full-time program will also allow students to produce clinical research of "high quality," says a report outling the program's structure and goals.

"The need for trained clinical teaching personnel is acute within the (UW) optometry program," the report says.

"The school of optometry is currently meeting a considerable part of its clinical teaching by the employment of graduates with less than three years' experience in clinical practice and with little or no teaching experience.

"The nature of their employment provides neither time nor opportunity for on-the-job training in teaching and research methodology."

Dr. Emerson Woodruff, optometry school director, said that of the 35 part-time clinical supervisors, 23 have "too little experience" in teaching undergraduate students. But they are "all good people," Dr. Woodruff noted, adding that they must have been in the "upper third of their (graduating) class to be employed."

It's just that they have "minimal experience" in teaching students as they don't have an overview of all aspects of optometry, the director said.

He said the aim of the program is to train "someone with a depth of experience in an area and a broad outlook on the optometry field—we are not creating specialists."

Dr. Woodruff said the program will provide its graduates with clinical practice and teaching experience as well as an opportunity to do research by using the school's library, laboratories and "advanced instrumentation." In fact, to receive the "diploma of residency," a student must produce two papers showing research into clinical aspects he or she found interesting during the training years.

One reason why the school finds it hard to hire people with enough experience in clinical teaching and research is that it can't match the salaries optometry graduates can get when they open their practices, Dr. Woodruff said.

"Lots of grads go out to practice—they can command a starting salary of $23,000. And about a third of the class go to other provinces." (UW's optometry school is the only English-speaking one in the country.) He said the nine full-time clinical supervisors are fully qualified to do their work since they have "enough experience" in the clinical field.

To upgrade the teaching and research skills of current part-time supervisors, the school offers another special program—provided they can find time to take it.

The school's graduate studies officer, Dr. Ross Beauchamp, said the residency program is aimed at recent graduates since it would be unfeasible for an optometrist to leave a practice to take the full-time course.

The current supervisors would also have to leave that job if they wanted to take the program.

The program will allow students to specialize in areas such as binocular vision, community health and environmental vision, contact lens practice, low vision and ocular health.

"The first year of the residency will provide a broad experience in several clinical areas and participation in didactic and laboratory activities," says the program's report.

"The second year will provide clinical courses and experience exclusively in the areas of the residency."

Students may be required to take courses in clinical teaching, depending on their background in the optometry field.

The official goal of the program is to "provide persons skilled in specialized optometric services and produce teachers with research capability."

*Reprinted from the U.W. Gazette