71. The Staff of the Institute

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There is a saying that “behind every great man is a great woman.” Something similar can be said for The Institute of Optics: “Behind this great department is a great support staff.” There were, and continue to be, men and women who made a lasting impression in the department, through their passion for their job, their outstanding skills, and their longevity. This essay pays tribute to these people, the technical staff, and the administrative staff, who put in the extra effort from World War II and continuing on into the twenty-first century.

The Shops and Shop Staff of The Institute of Optics: The Early Years

In the beginning, the Institute of Applied Optics was established “to train students in the various fields of optical science” and “to prepare candidates for work in the optometric and ophthalmic fields,...” To assist in this endeavor, the University of Rochester agreed to set apart, without cost, the whole fourth floor of Bausch & Lomb Hall, which was currently under construction, with facilities and service staff to be available for use by the Institute. Any special tool, apparatus, widget, or whatchamacallit that was needed for teaching or research had to be fabricated in-house. E-Bay didn’t exist, neither did Newport, VWR, or other manufacturing firms to supply these items (though many optics alumni started their own businesses to fill this niche). Specialized shops were established and extraordinary people found to staff them.

Glass shop

One of the first facilities was the glass shop, with the emphasis on the design and construction of eyeglasses. This shop was overseen by Ernest Petry (formerly dean of the Rochester School of Optometry) and his instructor in optical shop work, Herbert E. Wilder. The partitioning of the floor was completed as quickly as possible. Petry’s clinic rooms and offices for optometry were divided off at the east end, and the glass workshop was at the west end, leaving the center for the work in applied optics. It wasn’t long before the top floor of the B&L building was inadequate and the glass shop had to be moved and reassembled in Gavett Hall. In 1936, the last class graduated from the division of optometry. Ernest Petry’s work with the University was concluded at the end of the 1935–36 year, but Herbert Wilder continued to have charge of the glass workshop until his retirement in 1938. Around 1938–39, the large room in engineering lent since 1930 for the optics glass shop had to be vacated to make room for the new Department of Chemical
The glass shop was moved once again—another in a long series of moves—to the basement of the Library.

Machine shop

Space on the fourth floor soon became limited, and a metal workshop for making small research apparatus and special laboratory equipment was located on the third floor and shared with physics. Clarence McVea was the machinist in charge for some years, to be succeeded by Paul John, a very precise gentleman who had just two standards, good and perfect. One had to specify which was required. A story floating around goes something like this. Paul was encouraged to take on an apprentice, as he was nearing retirement age. In the shop was a machine that had been tweaked and twitched to the nth degree of calibration, all done by Paul himself. As the story goes, the apprentice had the machine “untweaked” by the end of his first day of work. Needless to say, the apprentice was not seen again, and Paul was left alone in his beloved workshop.

Design shop

In 1929, then University President Wilkins reported the appointment, part time, of Gustave Fassin, an employee of Bausch & Lomb, to teach mechanical design of optical instruments. A Belgian who had taught at the Technical School of Ghent and had charge of workshops in the Societe Belge d’Optique, he was an original and competent designer. After the close of the optometry school, more prominence was given to Fassin’s work: instruments designed and completed for use in research involving optics. In 1938, there was another major change in the faculty: Gustave Fassin left town to join another company and so had to relinquish his superb teaching of instrument design at the University. He was a great personality, and his loss was a serious one for the Institute.

World War II to the Present

By the end of 1940, the Institute was already working on optical problems for government agencies in an effort to avoid the serious shortages of optical devices that occurred during World War I. At the height of activity, some fifty people—scientists, technicians, machinists, research students, and others—were involved in the Institute’s program of cooperation with the government.

Optics shop

The optics shop (as it became known) once again moved, from the basement of Rush Rhees Library to Gavett Hall. The primary purpose of the optics shop was to grind and polish lenses, prisms and other optical elements for The Institute of Optics. Hugo Guenther, from Bausch & Lomb, headed the optics shop, followed by Bill Kingert.
Herb Graf joined the staff of the optics shop in 1943. I had the opportunity to sit in on the taped interview of Mr. Graf’s reminiscences of his time in the optics shop which are included in essay 16. He was brought on board by Professor Fred Paul after a chance meeting while duck hunting on Irondequoit Bay in Rochester. He was here during the hectic years of World War II, working on various projects for the war effort. He talked about doing the work on the optics that were put in the tubes for the range finder on the battlewagons and of the triple mirrors used to outline an airfield at night. He also spoke of the ninety-degree angle flashlights that were mounted with a unity telescope on top that had an area in the middle that was sensitive to infrared light. When the flashlight was turned downward, it became an infrared light source. When the paratroopers dropped behind enemy lines, they couldn’t do anything one by one, so they had to get together as a force. These flashlights were used to re-assemble the group. These flashlights were made in the optics shop.

The shop still exists today, moving once again, this time to the Laboratory for Laser Energetics.

**Instrument shop**

Rudolf Hamberger came to the University in 1949, to the Institute’s instrument shop. Over and above sheer mechanical skill, his strong point had been his close concern with the research operation, and the active interchange which existed between himself and the people in the laboratories. He came into the lab, observed what was there, and listened to the scientists’ needs and wants. He could deduce what was required, often with insufficient information, and then produce a component or instrument to do the job. Rudi retired at age sixty-six in 1965. Pat Borrelli joined the instrument shop around 1962, following in the footsteps of Rudi. Pat enjoyed the creative process. After Pat’s retirement, Ken Adams took over the instrument shop, whose current reincarnation not only provides support for optics but also for the entire University. The instrument shop is currently housed in a separate one-story building next to Wilmot. And, yes, it will be moving soon again.

*The Optics Instrument Shop, 1966.*
Photography shop

The Institute even had its own darkroom and photography shop. This shop had the responsibility for producing graphs, pictures, and tables in accordance with the requirements of the various journals to which articles were submitted, as well as for the slides that were used at technical presentations and conferences. Alan Knapp was the photographer and David McCumber was an illustrator. Then came along computers and publishing programs.

Administrative Staff of The Institute of Optics

Directors’ assistants

No history of the Institute would be complete without mentioning the various directors’ personal assistants. Helen Tobin was the first administrative assistant. Helen was a native of Victor, New York, and joined the University as a staff member shortly after she received her B.A. degree at the University in 1929. She started out in the physics department but transferred to optics when the department was relocated from Prince Street to the River Campus. In an article at the time of her retirement, it was noted that “Her service to the department has lent much in the way of stability and quality consistent with the Office of the Director, while at the same time retaining enough flexibility to cope with the individual differences of successive administrations.” (What a gentle way of putting it!). Helen remained secretary to the director for the next forty-three years, retiring in July 1972. Lois Greene succeeded Helen, then Gina Kern, Imelda Panzer, Jean Conge, and again Gina Kern. It is interesting to note that in the seventy-five years of the Institute, there have been only five directors’ assistants.
**Department administrator**

About 1965, Institute Director W. Lewis Hyde made the appointment of a new kind of department administrator, a member of the staff who would relieve the director and other faculty members of much organizational work. Susan Raup was the first such appointment; she was followed in due course by Karen Strand, David Child, and the current occupant, James DePinto.

**Department secretary**

Anyone who worked at or attended classes in the department between 1952 and 1987 will remember Evelyn Snyder, the vivacious and dynamic department secretary. She was extremely well liked and respected. She started as a temporary employee, but the friendship which developed between Evelyn and the students, staff, and faculty kept her here as a permanent worker for twenty-five years. Evelyn passed away in 2003.

The Institute grew by leaps and bounds during the last quarter of the century, and there was a large secretarial staff to support the faculty. The advent of the personal computer decreased the need for basic secretarial assistance, allowing administrative staff members to become more specialized to make the best use of their particular talents.

Undergraduate and graduate administrative assistants: As the student enrollment of the Institute increased, administrative positions were created to facilitate the student’s journey towards getting their degree. The full-time position of undergraduate secretary was first occupied by Joan Christian, then Betsy Benedict. The position of graduate secretary was originally filled by Beverly Holloway; upon Bev’s retirement, Joan Christian moved over. All of these women exhibited patience and compassion with and for the students. Bev had the added benefit of a prior naval career background, which came in handy keeping the students in line.

**Special events planning**

Gayle Thompson joined the staff in 1982 as an assistant to George Fraley and worked her way up the ladder. She currently provides invaluable assistance as the special events coordinator (unofficial title—party planner). Gayle coordinates the semi-annual meetings of the industrial associates, the annual two-week summer school, and other special events held or sponsored by the Institute. If you need a room on campus for a specific event, Gayle can rattle off capacity, amenities, and the location of the nearest rest room.

Sponsored programs administration: Maria Schnitzler joined the Institute in 1986 as administrative assistant for the ARO-URI Center for Opto-Electronic Systems Research, which had a budget of $20 million over its lifetime. Maria provided the financial administration needed for a large, multi-investigator program as well as coordination of agency review meetings. She has since provided the same services to other faculty members in the
Institute. Her presence at meetings prompted one faculty member to remark, “When I saw Maria in the conference room organizing meeting materials, I knew everything was going to be just fine.”

**Purchasing and bookkeeping**

The current bookkeeper and “purchasing person” is Noelene Votens, who came to optics in 1999. Noelene is the keeper of the pencils and erasers and works well amidst the chaos of faculty, staff, and students.

**The Great Ones**

An essay on staff members of The Institute of Optics would not be complete without mentioning Johnny Leone and George Fraley. These gentlemen didn’t fit into any neat job description. They provided invaluable service, loyalty, and imagination to the department.

**John Leone**

The first “great support staffer” was John Leone. Hilda Kingslake, in her history of the Institute, stated that Johnny was “a very young man of great good will, who was appointed technician and general factotum as soon as teaching at the new campus began (1930).” While his job description was technician, he was the jack of all trades, and one of the department’s prime movers. He continued in this capacity until his retirement in 1975; sadly he died that same year. Johnny’s dedication can be summed up in this story, which is unsubstantiated.

George Eastman was to visit the Bausch & Lomb building (yes, that George Eastman). Now remember, this was the Mr. Eastman who split his house in half in order to move it several feet to make it bigger—he paid attention to detail. Everyone in the department wanted all to go well. Elevators in those days were manually operated, and sometimes the level of the elevator floor didn’t quite match with the level of the chosen floor. No one wanted Mr. Eastman to trip. So Johnny spent a whole day stopping and starting the elevator, matching up floor and elevator levels. Johnny was rewarded for his efforts; Mr. Eastman did not trip or fall during his visit.

**George Fraley**

George joined optics some time in 1941, when the war effort was geared up and the Institute did military restricted classified research. George played an important part in most of the research being conducted; driving around town with the forerunner of night vision goggles on his head (see “Man from Mars”); detonating explosions in Mendon (see “Let Sleeping Cows Lie”); hunting prairie dogs on a naval base in the middle of the country (see “Hunting Prairie Dogs”); and almost imitating men in their flying machines (see “Accidental Launching”).