## NEWS FROM DOROTHY'S OFFICE

It has been quite an experience for me to play a part in celebrating twenty-five years of computing at Columbia. As can be seen in our recollections of the past, administrative computing did not always play the substantial role it now does in the computing life of the University. We have been remembering some of those early experiences all through this past year—seldom seriously—but I would like to share an observation that Catherine Malcolm made to me recently. ADP actually originated in the Controller's Office, the first department to use a punch card system. Some of their staff, followed soon after by some of the Registrar's Office staff, were the first members of our ADP family.

The first large system ADP acquired is still with us—the ARGIS system—and I recall very clearly the accusations that we were using all the tape drives and all the system resources at the expense of the University researchers. Then there was the payroll accounts distribution system, which would never run successfully unless Peg Stamm was there to cajole it. Drita Ivanaj held the same charm over the budget runs.
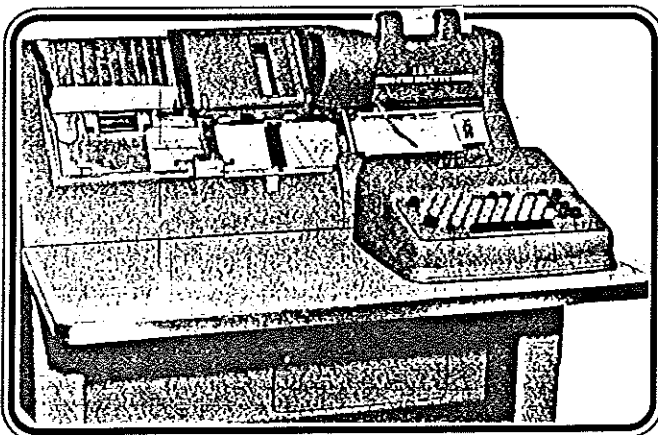
In those days we did not have a systems group of our own, and we certainly didn't need one, but we did need to form a production group. Norman Shakespeare and Gene Mack saw us through those early days when source decks were kept in desk drawers and then carried to the Computer Center for production runs. It was a novel idea to store all source decks together (possibly in a metal cabinet).

Enough of the old days; let's look to the future! Recognizing that we have, indeed, "come a long way," we can certainly take pride in our organization, in the services we provide, and in the major role we play in the administration of the University. There is still so much to be accomplished. We want to provide every opportunity for all schools and departments to use the data resources we have available throughout our central computing facility.

We would like ADP to act as consultants to the University, to provide expert help in all phases of information technology. We see ourselves becoming specialized in many diverse areas: in networks, in hardware and software at the micro and mini-computer level, as well as at the mainframe level. We want to continue assisting management to use data as a resource in planning, in modeling, or even in just understanding the various components of the University.

Many challenges present themselves. We want to utilize state-of-the-art communication and network tools, faster and more efficient mainframe computers, more powerful micros, and we want to establish distributed data centers. In addition, we want to position ourselves to deliver both local and mainframe applications as a unified package, so that all

levels of management in our customer areas will benefit from newly-developed systems. This is a major change of direction in development.

The unique challenge of managing a major computing facility is in strategic planning. We must be knowledgeable about the future of information technology; we must be flexible enough to adjust our plans as the new technology comes into the marketplace; we must set a direction based on the requirements of the institution and its many facets; and we must deliver the systems and data products required by a very diverse community of users. (not too tough a job!)

One singularly important aspect of our future is the recruitment and retention of a highly-skilled, innovative, and responsible staff of systems professionals. We currently have such a staff, and it is with no small degree of pride and enthusiasm that I look forward to many years of exciting and productive contributions to administrative computing at all levels of the University.

Dorothy Marshall
Assistant Vice-President, ADP

## THE VENERABLE FIVE

Just which of you ADP "old-timers" have been around the longest? It was not so simple to determine. If you count staff who have only worked for administrative computing, then **Dorothy** herself heads the list. (See how far you can go if you stick around in ADP?) She began working here in January, 1970. Then comes **Tom Chinlund**, on June, 1970. (Actually Tom began working in User Services in July, 1968, which would have given him the honor hands down, but since User Services was not part of ADP, he must settle for second place. In third place we have **Diana Tsingopoulos**, who arrived in ADP just one month after Tom, in July, 1970. In fourth place we have **Nola Johnson**, who joined ADP in April of 1971. And in fifth place comes **Calvin Oba** in July, 1973.

*Admini-bits* asked each of these venerable staff members to recall those far-away days and to submit a couple of paragraphs on "I remember when...."

### ① *Dorothy : MOVING TO WATSON*

I remember when I first visited Watson in 1970 with the architect and engineers who were to convert the Watson Laboratory to offices. The third floor was entirely without inner walls and contained large milling machines and other noisy tooling machines, as well as pipes, hoses, and exhaust ducts. It was difficult to visualize this odd-shaped building with the kind of offices we needed, yet somehow drawings were generated. Well, the staff in Casa Hispanica felt they were extraordinarily crowded. And the staff in various neighborhood apartments liked working together in the apartments—or so the story goes. Therefore, the new building was supposed to accommodate those who wanted their own *space* and those who wanted to retain *intimacy*. Furthermore, the Computer Center technical staff wanted to stay near their computers and were not thrilled about moving all the way to 115th Street. I guess it is safe to say that we didn't start out as one happy family.

As IBM slowly moved its staff, we were able to house, in a semi-deserted building (under reconstruction), a group of consultants from Coopers and Lybrand who were working on a new accounting system, affectionately known to all as GASP. These poor souls had a really tough time, left with only a few IBM'ers and the mice, roaches, and endless dust. The consultants really earned their money.

Meanwhile, I was asked to coordinate all the moving. That involved packing, labeling, and trucking; ordering new furniture—in rare instances; and, most delightful of all, working with managers on floor plans and office allocations. (I do not remember it as a happy time!) But one day our migration to Watson was complete, and everyone lived happily ever after—give or take a few years.

## ② Tom: THE NOTION OF PRODUCTION

I remember that when I first came to ADP, production was in its infancy. The notion of production, as opposed to programming and running jobs, had only been introduced at ADP the preceding year. It was up to Norm Shakespeare, the first manager of production, to make this notion real. It was no easy task. Norm had the weight, the voice, and the persistent skepticism needed. His was the duty of clarifying to programmers that their jobs were sure to have bugs, that "just one little change" was a guarantee of disaster unless thoroughly tested, and that an undocumented program was unrunnable. Programs were on punch cards in those days, of course. Norm had inherited quite a few object decks with no corresponding source code. He insisted not only on source code, but also that his operation would compile object decks—otherwise source and object had a way of not corresponding.

These were all new ideas in those days of cottage-shop data processing. Norm liked to mimic the overconfident programmer: "Never mind specifications, never mind testing, never mind documentation, just code! Code! Code!" His hand would move rapidly over an imaginary coding pad as he spoke.

Norm solidified a practice of production acceptance. He rejected a lot of programs and documentation, turning them back to the programmers time and time again, like a thesis adviser handing back successive drafts of a dissertation. Slowly over that year and the next, run books were composed, control totals were implemented, and production sequences began to run with some regularity.

## ③ Diana: THE DAYS OF THE 1410

I remember when ADP ran most of its administrative systems on the 1410, a second-generation IBM computer. Since the 1410 had only 20k of memory, programs with more than a few hundred lines had to be split into phases and run separately. The load modules consisted of card decks which were read into the 1410 at each execution. Even the sort utility had to be read in for each sort executed. It consisted of 2000 (uninterpreted) cards which had the nasty habit of falling on the floor. Since it was virtually impossible to get them back into their proper sequence, the deck would have to be discarded. We often went through three to four decks per month.

The 1410 had two tape drives, a printer, a reader, and a punch—and it was run single-handedly by one diligent computer operator. As small as it was, the 1410 managed several financial systems as well as the admission, registration, and grade processing for 16,000 students. All these systems were eventually converted to the 360/91. It was the end of an era, although the old 1410 served as a faithful backup for several years.
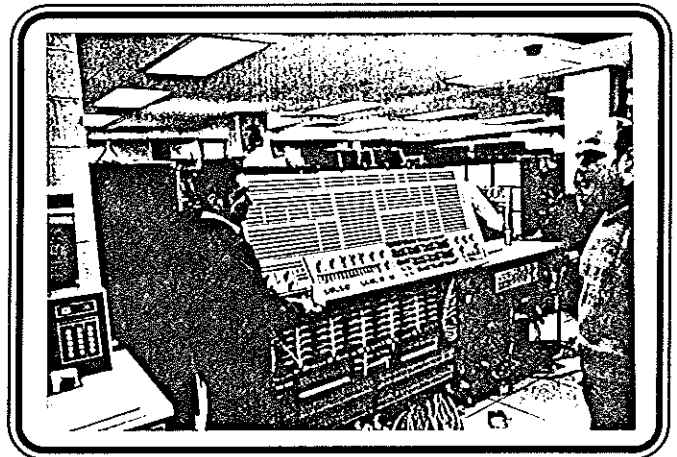


## ④ Nola: FRISBEES AND KITES

I remember when we were packed like sardines in Casa Hispanica. There would be three or four of us in one tiny room, complete with keypunch and fireplace. It wasn't easy, with so many of us on top of one another. But living so closely, you had to get along with everyone in those days—you had no choice.

To relieve the tension of our close quarters, a group of us used to go to Riverside Park on our lunch hour and play frisbee. We would have tournaments, and Dick Melita would always win. He was our frisbee

champion. (Where is Dick Melita now, I wonder?) And there was kite flying. That was a popular lunch-hour sport with the group too. Then, late on Friday afternoons impromptu parties would spring up. I remember the time when Norman Shakespeare brought in the Jamaican rum.... Well, never mind, let's just say it was a fun time to be in ADP. Eventually, of course, we all moved to spacious quarters in Watson, and things were not the same anymore.

## ⑤ Calvin: HAZELTINES AND KEYPUNCHES

I remember when Room 309 was the third-floor terminal room. There were three terminals: a hard-wired Hazeltine, which operated at 1200 baud, and a dial-up Hazeltine, which was linked to an acoustic coupler. The latter operated at 300 baud, which wasn't much faster than the Anderson-Jacobsen hardcopy terminal, the third terminal in the room. Unless we managed to get a port by dialing up first thing in the morning, we risked having only one CRT for the rest of the day. Even then, in the likely event that the acoustic link went down for any reason, the result would be the same, unless we managed to restore the link before someone else took the line. But not to worry, there was a keypunch in the room too. The catch was that you not only had to punch in your data card by card, but you also had to somehow get the card deck over to the Computer Center to be read into the machine.

When either the hardcopy terminal or the keypunch was operating, the room sounded like the interior of a boiler factory. Mercifully, a cover was installed over the hardcopy terminal to reduce its noise. The current RSCS printer in room 501 was only a dream in those days. The emergence of such printers, along with the proliferation of individual terminals, has certainly been a major boon to programmer productivity.

## OLD MACHINES I HAVE KNOWN (AND LOVED)

My first exposure to computing machinery at Columbia was as a student at Barnard. I was taking a course in PL/I (at the time, a neat, innovative programming language) and I needed to use the computers at the Computer Center. The banner page of my output stated that there would be a new release of the operating system over the weekend (from OS Release 18 to Release 21). The message said something about the change being "transparent to the user." (This phrase, by the way, is also something I have learned to know and love.) I asked one of the resident "expert" systems programmers what it meant when something was transparent to the user. He said it meant that the users wouldn't notice the change. Well, the users didn't notice the change—at all. It was another two weeks before the machine was up with its transparent change. I was not deterred.

I then became a U.I. consultant—hey, I knew what "transparent to the user" meant, what else did I need to know? I was put in the SSIO area, a room with a machine that completely filled the place. This machine, I was told, was called a Model 20. Its sole purpose was to replicate and/or print users' card decks. A large part of my job became unjamming the cards in this alleged computer and trying to recover jumbled card decks. I was clearly ready to move on.

I graduated to system programship and did most of my work in *the* machine room, which housed the 360 75/91 tightly coupled computer complex. These machines were as neat as could be. The machine room was full of plumbing units, cabinets crammed with various colored spaghetti, and best of all, consoles with trillions of blinking lights. The 91 had sixteen-way memory interleave and something called "loop-mode." If you could get your program to execute in "loop mode," then it would run like the wind. When you took system time on these machines, you took the whole computer complex. The feeling was really exciting: an entire room filled

with equipment—all doing exactly what you told it to do. Since system time used to drag on forever, the system programmers and assorted machine room groupies would get hungry. If we were very careful, and kept the box perfectly horizontal, we could fit a V&T's pizza, extra cheese and all, into one of the hotter 91 cabinets. Within minutes we could slide a hot pizza out of the machine—with little loss in cheese. It tasted great. (Yes, I know you're not supposed to eat or smoke in the machine room.)

And about smoke, we had a number of vendor reps who smoked in the machine room. This would set off the smoke detectors. No big deal. The real excitement came when the Stromberg-Carlson, a sophisticated graphics device, caught fire each week. The smoke detectors would go off, smoke would fill the machine room, the fire extinguishers would be pulled out. This all resulted in neat, but hazardous, graphics.
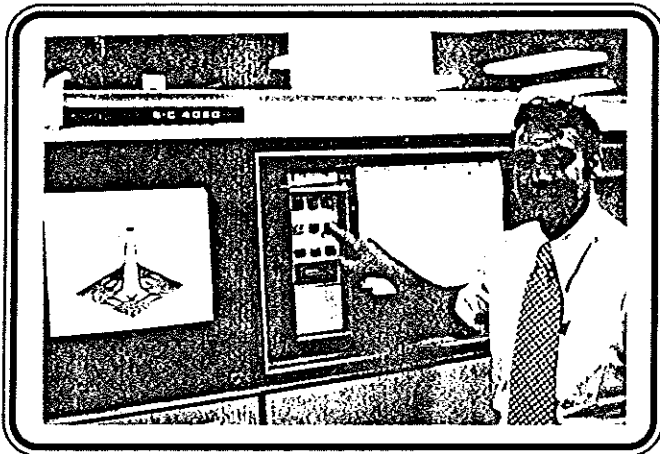


A large part of my indoctrination as a systems programmer was orchestrated by the IBM FE's, (hardware fixers) who were always around at that time. They were as impressed by the futuristic equipment as we were and they, too, spent many hours hanging out in the machine room. Once, after just putting a minor change into the operating system software, I tried to re-IPL the system. It was as dead as a doornail. It was so dead that I couldn't even remove what I had done. The feeling in the pit of my stomach could only be matched by how I felt the time I creamed the VM directory and couldn't even

get the operator to sign on. Well, there was Rich Frizziella in the corner with a grin from ear to ear. He had thrown one of the many toggle switches on the 91 console. After letting me spin for five minutes, he threw the switch again, things took off, and systems time was over.
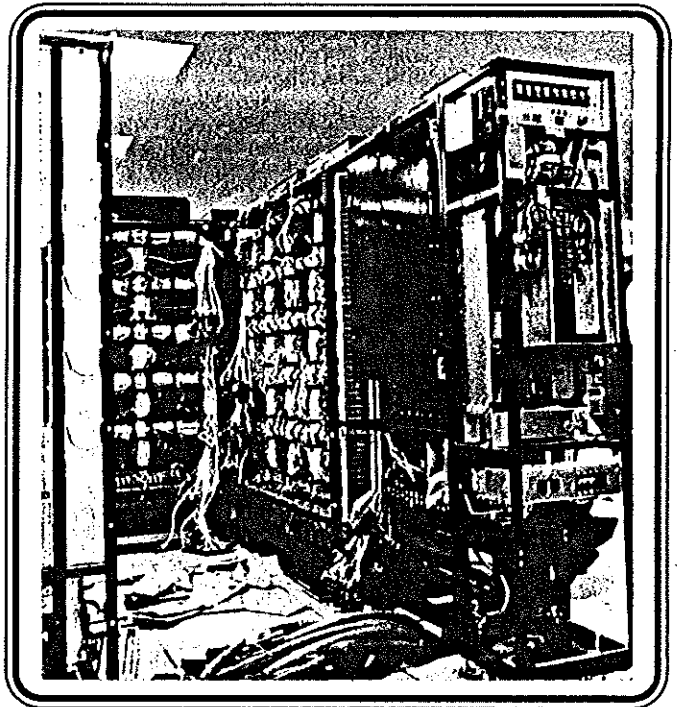


The machine room also housed something called the HPD. The only reason I knew about it was that I was asked to "sysgen the HPD on channel 0 address D0." I later learned that the HPD was a remarkable piece of equipment, belonging to the Physics Department. It consisted of a hydrogen bubble chamber, a tool to assist in the search for interactions between nuclear particles. Particles were shot around and the results measured in real-time on the 91. Now, at my mature age, I am far more impressed than I was back in those days.

The 370 class of machines followed from the 91 and 75. We had a 370/138 machine installed in no time. The machine was small (and slow) but it ran VM. At the time VM was a little-known, cute operating system with about 100 worldwide users, a system that IBM thought was nice, but would never catch on. The 138 was our "baby." We brought it up every morning, and we brought it down every evening.

We didn't want anyone doing something to it when we weren't there. Our attachment to this computer was sensed by everyone. The day it finally departed (upgraded to a 148), I found a little package wrapped in computer output on my desk. It was a small piece of the 138, a token from one of the IBM FE's.

We did have a killer printer at that time, the 3211. My first exposure to it (before we got one at the Center) came when a group of us ADP people were developing the operating system at IBM during the hours of midnight till five in the morning. (Hey, you took what you could get.) This printer was designed so that when it ran out of paper, it would raise its hood. Well, we all regularly left our dumps (nothing ever works the first time) sitting on the top of the 3211. We would all get a little punch-drunk periodically, and succumb to the killer printer. It would run out of paper and hurl our output across the room, unfan-folding as it flew. It seemed pretty funny at four a.m., but not so funny in the light of day when we tried to figure out what we had done wrong the night before.

When the 3083/3081 came it was both the end and the beginning of an era. We had entered the time of the big machine again and we were back to the plumbing units. Both the 91 and 3083 were water cooled. All the water pipes had been pulled out when the 91 was dragged from the machine room and we had to put them back. The 3083 did have an innovative feature at the time (which we also have on the 3090): it could "call home." It had a built-in
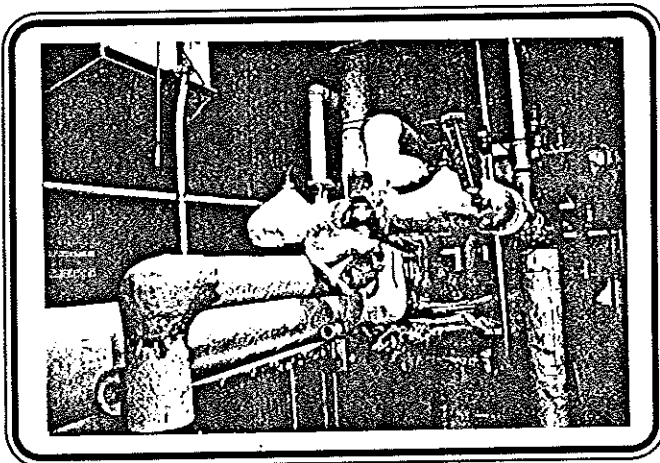
modem so that if it sensed hardware problems, it called IBM (home, of course) and got diagnosed over the phone. An IBM FE would be dispatched with the necessary part and arrive at the machine room, sometimes to the surprise of the machine staff who were often unaware that a problem had occurred. The FE's sudden uncanny appearance was truly dramatic.

But of course nothing will ever be quite as dramatic as those trillions of blinking lights on the old 91 console.

Sandi Resnikoff
Planning Group
Watson 311

## PERSONNEL NEWS

■ **Richard Combs** was promoted to Programmer/ Analyst B in the Health Sciences Division of ACC, as of September 1st. In recent days Richard has been busy completing his creation of the Continuing Medical Education Systems, which will track CPMC doctors' rounds, report on CPMC-sponsored seminars, and facilitate the CPMC-Community Hospital Lecture Series.

■ Effective on September 19th, **Johanna Woltjer** assumed new job responsibilities. As CICS Application Consultant, she is now assisting Ray Aston in the review and modification of the on-line portion of the ISI project. Johanna will also act as a consultant to other staff on CICS application issues. (Responsibility for TMS, OPG, and INSITE is being temporarily assumed by Bob Parlato.) Johanna's office is now Room 413, and her extension is 47445.

■ On September 6th, **Thurston Clark** was transferred from the Planning Group to the Administrative Systems Production Group, reporting to Jim Cassidy. He will still be responsible for the ADP data communication requisition process, for the

Volume Control System off-site, tape back-up and storage, for tape library management, and for other related activities. He can be reached on extension 43160 in Room 416.

■ **Laura Daye**, Administrative Assistant at Hogan Hall (who often helped us out in Watson too), resigned as of September 23rd. She will still be around the campus, however, as she is now working for UDAR (over in Thorndike) as a Matching Gifts Coordinator.

■ Want to relax a little after a hard week of work? Join **Jonathan Markow**, our ACC pianist, who is back again by popular demand every Friday night at the Faculty Club Cocktail Lounge. From 5:00 to 7:30 P.M. Jonathan performs with a bassist to bring you a jazz duo for easy listening. The admission is free, and there is a cash bar.

## A NOTE FROM THE EDITOR

Since we're looking at the past, did you know that Watson used to be a residence for musical young ladies? That's right. Called the Parnassus Club, our building was a respectable home-away-from-home for young semi-professional performers and students from Juilliard, Barnard, and other neighborhood institutions. It was the kind of place where well-to-do and middle-class families could safely allow their daughters to live, protected from what they saw as the inevitable dangers of New York City living.

By coincidence, I discovered that a recent friend of mine, Elinor Doria, was one of those young women students. She remembers her years in our building quite vividly. The club was run by a Miss Florence Macmillan, who ruled with an iron hand over her "Parnassus girls." Residents were not allowed to come or go without signing in or out. There was an eleven o'clock curfew which was strictly enforced. Special permission from Mrs. Macmillan was required to stay out later.

On the first floor (in Room 110) was a parlour where young gentlemen callers came to wait for their dates. Beyond the parlour they were forbidden to venture. In the front of the 8th floor were six practice rooms, all equipped with pianos. And almost every Sunday the students would give recitals in the Music Room, followed by afternoon tea. Taking up the entire front half of the 2nd floor, the Music Room was graciously appointed with antique furniture, oriental rugs, and two grand pianos. Tea parties were often held on the roof (yes, the roof; Elinor has the photos to prove it), and specially-invited young men were actually permitted to attend these "open house" teas. "It was a divine place," Elinor remembers, "and I loved living there—that is, until I met a young man and didn't want to be in by eleven any more. Then I moved across town to the YWCA Studio Club on East 77th Street."

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THE PARNASSUS CLUB
605 AND 612 WEST 115TH STREET
NEW YORK CITY

SUNDAY, MAY 7, 1950 AT THREE O'CLOCK
IN THE MUSIC ROOM

PROGRAMME
FLUTE:
    Suite in A minor...........................Teleman
        Ouverture: Lento — con Moto
        Air a l'Italien: Largo — Allegro — Largo
            CATHERINE LEWIS
            ELLEN BREST at the piano
SOPRANO:
    Am Sonntag Morgen........................Brahms
    Die Mainacht.............................Brahms
    Die junge Nonne.........................Schubert
            ELSIE GOLDBERG
            MARIE CHORAFA at the piano
VIOLIN:
    Praeludium and Allegro....................Kreisler
    La plus que Lent.........................Debussy
            SHIRLEY GIVENS
            MARGOT NISITA at the piano
PIANO:
    First Movement of Concerto in A minor.........Schumann
            ROSALIE MARSHALL
        Orchestral Parts on second piano
            MARY SPAETH
    First Movement of Concerto in C major.........Prokofieff
            SANDRA BURTON
        Orchestral Parts on second piano
            EDGAR DAVIS

        Steinway Piano      Everett Piano

    Our guests are invited to Haskell Hall at four o'clock
            STUDENT EXHIBITS
                TEA
(over)
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But the days of such residences were numbered, and in 1952 IBM bought the Parnassus Club and promptly donated the building to the University. The two institutions gutted the structure to bring in their computing machinery, and all traces of its former gentility disappeared. The Parnassus Club became the Thomas Watson Scientific Computing Laboratory, and the rest, as they say, is history.

# HAPPY ANNIVERSARY CUCCA