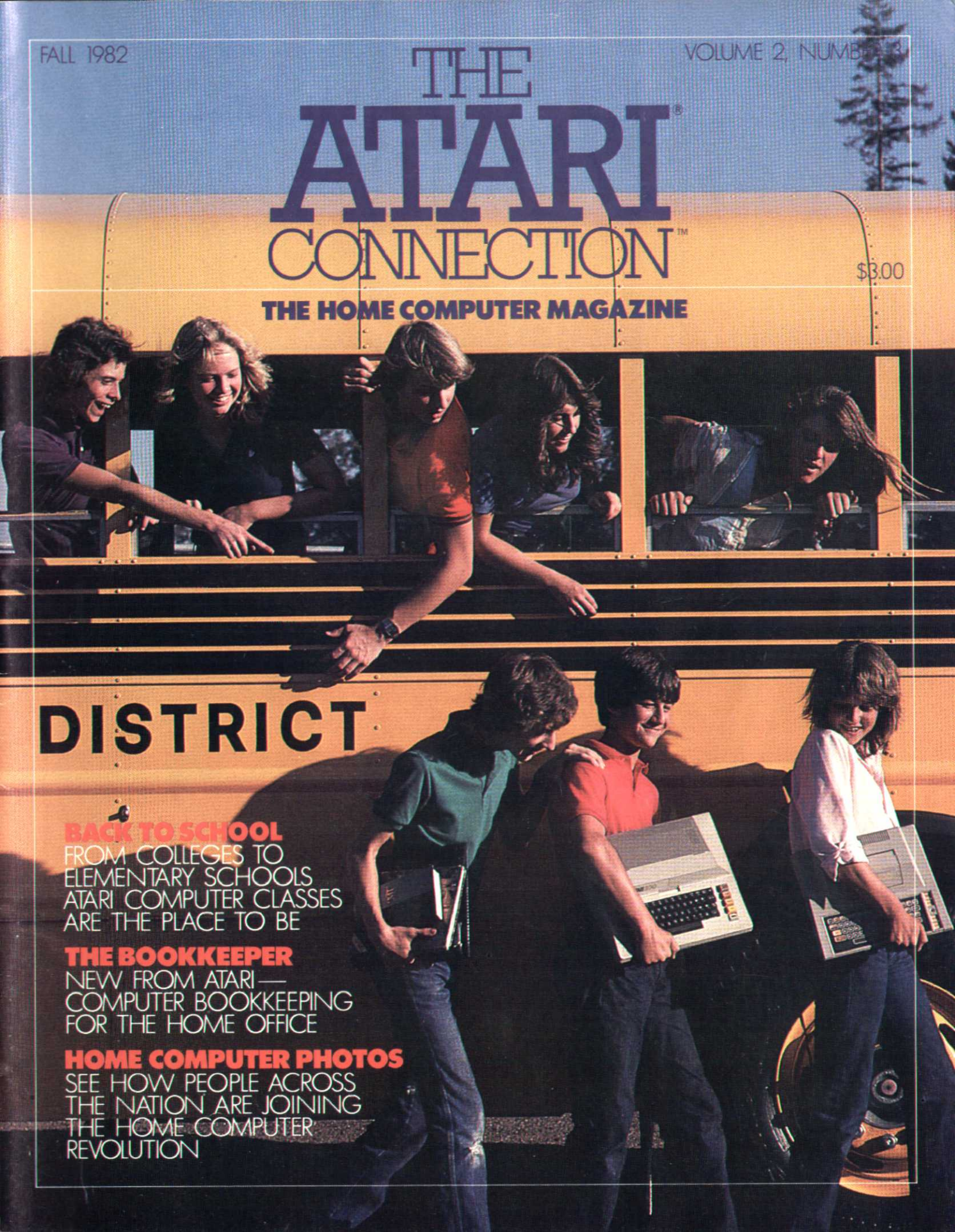
FALL 1982

VOLUME 2, NUMBER 3

THE ATARI® CONNECTION™

$3.00

THE HOME COMPUTER MAGAZINE



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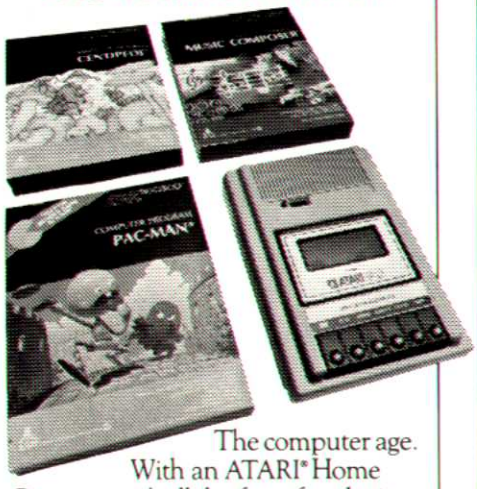

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Now through December 31, 1982, when you buy an ATARI 400™ Home Computer, ATARI will send you $10 for each purchase of up to six additional ATARI products.

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To receive your check from ATARI, just send your ATARI 400™ Home Computer Owner Registration Card, the box flap showing the part number, and your original dated receipts to ATARI, Inc., 60 E. Plumeria St., San Jose, CA 95134. Your letter must be postmarked no later than February 28, 1983.

THE TICKET.

This is your DISCOUNT FARE to the computer age. To receive your refund, save this coupon and redeem it in accordance with the details listed below.

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1. Buy an ATARI 400™ Home Computer between August 29, 1982 and December 31, 1982.
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6. Mail your ATARI 400™ Home Computer Owner Registration Card to the address on the card with all of your original receipts* and proofs of purchase. All ATARI Computer products must be purchased by December 31, 1982.
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All receipts, proofs of purchase and the ATARI 400™ Home Computer Owner Registration Card must be mailed together to be eligible for this offer, and must be postmarked no later than February 28, 1983.

*Please keep copies of your receipts to confirm purchase dates should in-warranty repairs be needed. Materials received without an accompanying ATARI 400™ Home Computer Owner Registration Card will not be processed.

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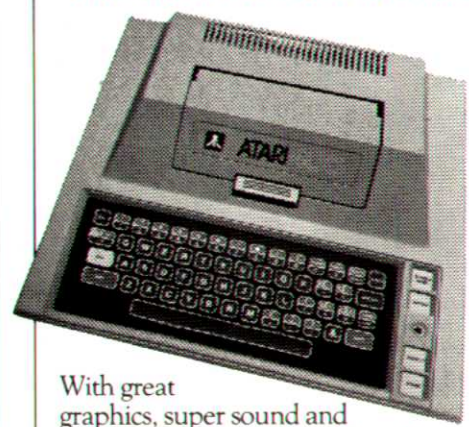
ATARI

THE TRANSPORTATION.



With great graphics, super sound and superior computing capability, the ATARI 400™ Home Computer has always been an excellent way to transport your family to the computer age.

The DISCOUNT FARES make it even more obvious that the best time to enter the computer age is now. And the best way is with ATARI.

So go to your nearest ATARI computer retailer and take advantage of the DISCOUNT FARES. Your trip to the computer age may just be the most exciting trip you've ever taken.

ATARI®

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**Accessories not included.

THE ATARI CONNECTION
The Home Computer Magazine
Fall 1982

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ADDITIONAL DATA

by Jack Perron

Computer magazines come in many shapes and sizes, but the most unique today are the ones on magnetic cassette or diskette. If you're curious about these new "electronic magazines," you're not alone.

Recently, I had a chance to look at *SOFTSIDE DV* magazine. *SOFTSIDE DV* (the "DV" stands for "disk version") contains ready-to-run programs from its regular printed magazine program listings.

Softside DV

SOFTSIDE DV offered five programs on the diskette, including one discussed in the printed version but not listed. It was a special "bonus" program. Each issue includes at least one. It's the kind you can't reasonably type in from a listing. This one was an arcade game, "Robot Battle," which used machine language speed — definitely arcade quality.

Currently, *SOFTSIDE DV* comes without ATARI DOS II, which means you must first insert a Master Diskette, DOS II, in your disk drive before you can load the diskette's programs into your computer (and don't forget your ATARI BASIC cartridge). Once up and running, you replace your DOS II diskette with the *DV* diskette. At the BASIC ready sign, you type RUN" D:COVER" and are rewarded with a graphic title page (animated with sound). It ends by presenting a menu of choices. Select one and settle back.

SOFTSIDE DV means never having to type in another long magazine program listing. One of my all-time favorite pastimes, the card game Solitaire, was on the diskette. I'm sure I would have been tempted to spend a few hours at the keyboard—now I don't need to. Gratification was instant. In a few seconds—colorful, high resolution cards dealt themselves across my TV screen, ready for me to play (alone).

Subscriptions to *SOFTSIDE DV* are $125 a year, the "CV" cassette version costs $75, and a regular magazine subscription is $24. Write:

SOFTSIDE
100 Pine St.
Holmes, PA 19043

Briefly Noted

If you missed *Popular Computing's* June 1982 cover story on Atari's "Chris Crawford: Artist as Game Designer," check your local library for a copy. It's a rare look at a programmer whose computer games have been acclaimed around the world... *ANTIC* magazine focused on modems and communications software in its June 1982 issue...*ANALOG 400/800* includes a tutorial on stereo-graphics in Issue #7. It even tells you how to make the 3-D glasses you need. *ANALOG* also offers a diskette/cassette version of their program listings...*COMPUTE!* helps ATARI PILOT fans with its "Friends of the Turtle" column by Dave Thornburg. In the July issue, Thornburg says, "turtle" graphics holds the key to understanding "fractals," those naturally occurring geometric shapes that have started a new geometry for science...*PURSER's* magazine has ceased publication.

If you have media information of interest to ATARI Computer owners, write:

Additional Data
c/o THE ATARI CONNECTION
P.O. Box 50047
60 E. Plumeria
San Jose, CA 95150

Jack Perron is a Senior Writer with the Atari Home Computer Division.

Inter-Connections

By Earl Rice

One of the more exciting new combinations of technology is the home computer connected to a telephone. Users' Groups, as well as commercial enterprises, have developed electronic "Bulletin Board" systems (BBS) using this new technology. An electronic bulletin board allows people with home computers to post announcements, exchange messages, and just plain have fun connecting with other computerists. An outstanding example of BBS systems is the bulletin board maintained by the Michigan ATARI Computer Enthusiasts.

You may remember that we have mentioned this group before. Their main interest seems to be communications and seeing how fast their group can grow. So far they have 750 members signed up. They not only maintain a public bulletin board system, they are offering their software for the system to the ATARI Computer Users' Group community. They have done a very good job with the program which they call AMIS.

As a service to Users' Groups, Atari's Users' Group Support Program will cover the cost of duplicating the the software and sending it to all registered ATARI Home Computer a BBS is like, grab your Communicator kit and call up the Users' Groups.

If you'd like to find out what using MACE board in Michigan. The number is (313) 868-2064. Follow the instructions the system gives you to log on. You will find there is a list of other bulletin boards around the country. If you see one identified as an AMIS board, you can thank MACE for the "connection."

Earl Rice is the Manager of Users' Group Support in The Atari Home Computer Division.

ON THE ROAD WITH ATARI

"ERIC" DEBUTS AT CONSUMER ELECTRONICS SHOW

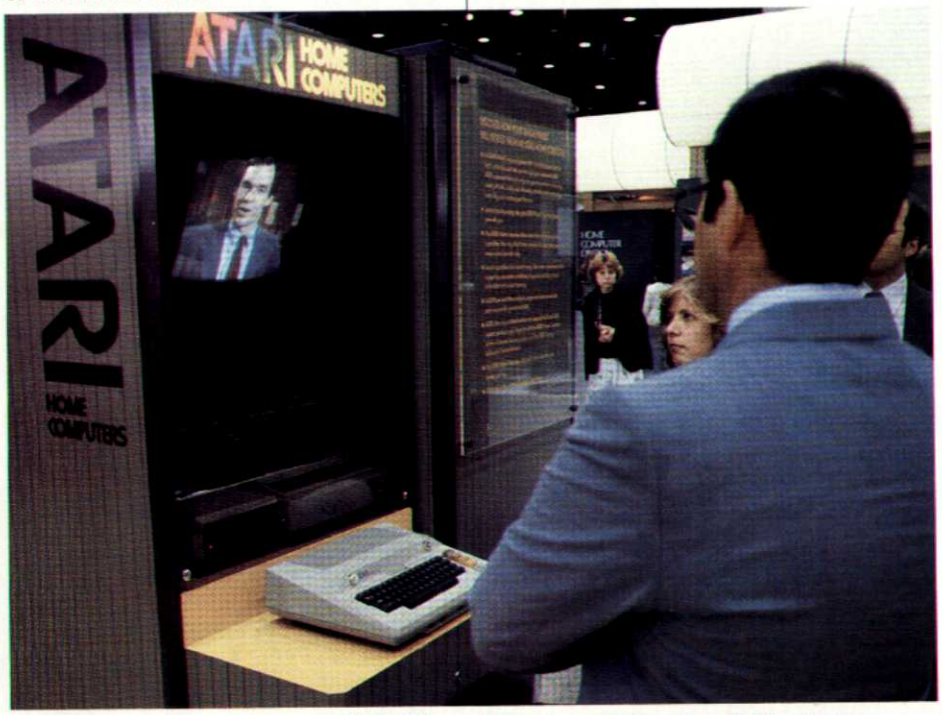
Each June, manufacturers from around the world convene in Chicago for the gigantic Consumer Electronics Show. Looking out over the sea of displays that filled McCormack Place this year, one of the busiest spots was the Atari, Inc. booth with its familiar rainbow canopy. The object of much of this attention was Atari's new *Electronic Retail Information Center*, otherwise known as "Eric."

Eric is the Atari Home Computer Division's new free-standing, computerized video disc display that combines the interactive features of the ATARI Home Computer with the powerful visual storytelling capability of the video disc.

By the time you read this, Eric may already be in residence at your nearest ATARI Home Computer retailer. He's there to give you actual hands-on experience with the ATARI Home Computer products that interest you. In addition, Eric was designed to show novices that using an ATARI Home Computer can be easy and fun, as many people discovered at the Atari CES booth.

Combining a home computer with a video disk player promises to be one of the most exciting new developments in consumer electronics. These interactive video systems offer the versatility and speed of the computer plus the entertainment of live-action video images.

Look for Eric at your nearest Atari retailer, and discover first hand the innovative and creative work being done by the people at the Atari Home Computer Division: "We've brought the computer age home."



"Eric" convinces a customer ATARI Home Computers can be easy and fun to use.

ATTEND COMPUTER CONFERENCES

Join in on PARTICIPATE, the new computer conferencing feature of THE SOURCE, AMERICA'S INFORMATION UTILITY.

Available to all subscribers of THE SOURCE, PARTICIPATE allows communication between small, select groups, or by an audience as large as you want. Share business information with a colleague in another city, or gain several answers and suggestions to a specific question by sending it out to all PARTICIPATE users. You can even conduct market research by polling PARTICIPATE users.

PARTICIPATE offers a quick-start guide with a self-prompting questionaire. The questionaire lets you set up the "PARTI" system to a format best suited to your ATARI Home Computer. For example, you can choose the width of the display and the number of lines you want to see when you read a message.

In addition PARTICIPATE allows you to branch into subtopics from a preceding conference which takes advantage of the extensive storage and information-branching capabilities of the large mainframe computers of THE SOURCE.

Whether you choose to have a private conference or an "open" one, time-consuming trips, meetings and telephone conversations are avoided, and conference participants are able to provide input from anywhere in the country.

Your ATARI Communicator Kit provides you with everything you need to tap into PARTICIPATE. If you'd like some more information on PARTICIPATE or any of the other communications features of THE SOURCE, call them toll-free at **800-336-3366**.

SPECIAL FEATURE

A SMALL COUNTRY SCHOOL BIG ON COMPUTERS

By Teddi Converse

Nestled among the towering pine and redwood trees along the Northern California Coast, is the little town of Manchester, population 462. It's one of the many small towns scattered along the Pacific Ocean cliffs that wind their way toward Oregon from Bodega Bay to Mendocino. You need only drive about 200 yards and you will have passed through the length of the town. Then you're on your way to Elk, Albion, and finally Mendocino and Fort Bragg.

Manchester has a hardware and grocery store, a post office, and a few other scattered homes and odd buildings. At the new Manchester School, the largest and most modern building in the town, 38 children attend kindergarten through eighth grade, and enjoy a playground with a spectacular ocean view.

To add to the uniqueness of the school's setting and its charming environment, it has one of the most supportive and advanced computer curriculums in the state of California.

The school is equipped with five ATARI Home Computers for the students, making it so there is one computer for every ten children.

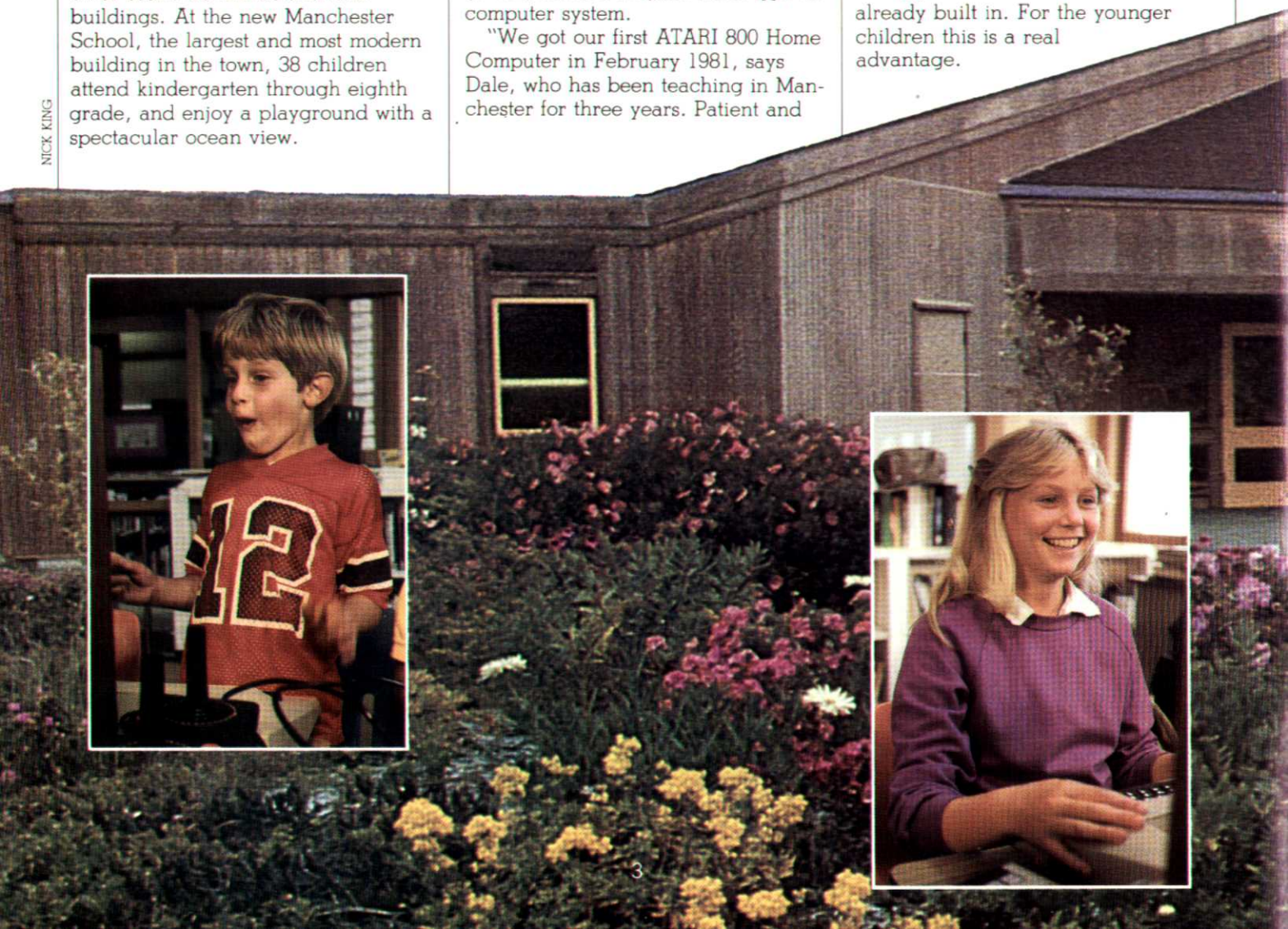
Dale Disharoon—"Mr. D" to all the kids, teaches the kindergarten, first and second-grade classes at Manchester School. Dale was the one who chose the ATARI Home Computer when the local school board decided to use money from the school's general fund to acquire some type of computer system.

"We got our first ATARI 800 Home Computer in February 1981, says Dale, who has been teaching in Manchester for three years. Patient and soft-spoken, Dale is one of the children's favorite teachers. "And then we bought three more ATARI 400 Computers when they were having a three-for-two sale."

Some other schools in the District were leaning toward other brands of computers, but Dale persuaded the school board that the Manchester school should buy ATARI Home Computers.

"Basically, it was an intuitive preference," explains Dale. "I like the features of the ATARI Home Computer. I like the graphics, color and sounds. And I like the fact that it has the upper and lower character set already built in. For the younger children this is a real advantage.

NICK KING



"ATARI Computers are less expensive than some of the other computers we were looking at," Dale went on. "It just makes more sense to have more computers available so that more kids can use them. It would be ridiculous trying to teach ten kids a programming class with one computer to work with."

In Dale's view, the many software programs available on cassette added another favorable vote for ATARI Home Computers.

"The program recorders seem easy for the children to work with. And again, cost played an important role. We probably could have gotten only one or two disk drives. As it stands, we have a program recorder for every system."

The Manchester School has a central computer area where the children can have access to the computers whenever they want to use them.

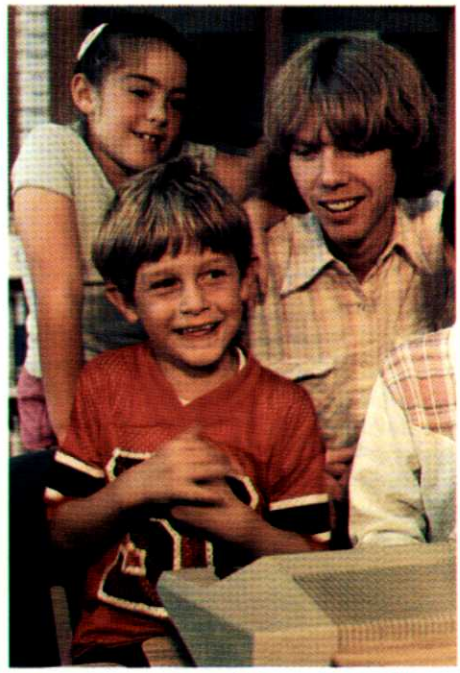
"Our use of the computers is really flexible," said Dale. "If any of the kids have an interest in learning how to program, I'll arrange a class. I usually begin teaching the younger children PILOT programming, and BASIC to the older ones. The kids can play any of the learning games we have available or try out programming whenever they feel they're ready."

Dale starts out teaching the children about variables (for instance, giving X a value of 10), and then uses sounds to illustrate how to use such variables to control the pitch, loudness and tone of the computer's sound generator. "Next, I begin teaching about using inputs with the sounds, and explain some of the commands like FOR, NEXT and GOTO," he says. "Then we start adding a graphics dimension to the program that we've started."

Mr. D is an enthusiastic promoter of educational uses of the computer. "We don't let the students play too many twitch games," he says. ("Twitch" is Dale's term for what a player does with a joystick controller.)

"I think the games are wonderful, but I'm really trying to teach the kids how to program and play games that promote educational goals. I believe that when the kids have all the games available to them in school, it sort of takes the edge off of learning to program." *Continued on Page 5*

SPECIAL FEATURE



Continued from Page 4

"They get it in their heads that they want to create a program like STAR RAIDERS, for example. And when *anyone* first starts programming, that kind of thing is just so far beyond what you can actually create with your program that it becomes very frustrating to the child and to me, the teacher."

The computer education program at the Manchester School is not unusual in Mendocino County. Most of the grade schools in the county, as well as the high schools, have computers.

"It makes it really beneficial that the high schools have computers also," Dale says, "because the grade school kids can continue working with the computers when they move on to high school."

When asked about the force behind such an advanced program in a county with so many small, rural towns, Dale explained that there are many strong supporters of computer education at the county level.

"The towns in Mendocino County are really spread out," he says. "And to get anywhere you usually have to travel quite a few miles. So the thinking is that perhaps we can enlarge the experience of our kids through new technology—not to mention that the computers are an excellent learning aid."

The county has a motor home, equipped with three computer systems and a software lending library, that travels around to the various school districts each week giving demonstrations. This allows the students and faculty to preview and test new software, and obtain support materials that can be used in conjunction with some of the learning games and programming languages.

With such a progressive curriculum and so many computers at the kids' disposal, does Dale consider the children of the Manchester School to be computer literate?

"Well...," Dale hesitates. "I wouldn't use the term 'computer literate.' Let's just say that they're extremely computer comfortable."

Teddi Converse is a writer for Marketing Publications in the Atari Home Computer Division.

EDUCATIONAL AND FUN SOFTWARE FROM APX

The ATARI Program Exchange (APX) was created by Atari, Inc. to distribute user-written software for ATARI Home Computers. There are many novice and experienced programmers who now have their original software being sold by APX.

Each quarter, APX publishes a catalog which contains all of the programs that can be purchased by mail, toll-free phone order or at your local Atari retailer. The programs are inexpensive and provide a convenient way for the many talented ATARI Home Computer programmers to share their work. Dale Disharoon currently has three of his own educational programs listed with APX:

Wordmaker—This is a fun and educational word game recommended for ages 6 and up. It uses a joystick controller to make three or four-letter words with a time limit of one to five minutes. You try to fill your side of the screen with more words than your opponent. You score up to five points for each correctly spelled word and lose five for misspelled words. At the end of the game, the winner's name of this spelling bee race appears!

Cubbyholes—This program offers a fresh approach for sharpening those addition skills! It uses joystick controllers to add numbers together in the cubbyhole to equal a number displayed at the bottom of the screen. A charming approach to teaching simple mathematics, **Cubbyholes** is a teacher's dream program, offering both education and entertainment.

Hickory Dickory—With all of the digital clocks around today, many children, faced with the traditional clock with hands, are often stumped when it comes to telling the time. **Hickory Dickory** can help children master both ways of telling time. High resolution graphics displays a traditional face clock and the child uses either the computer keyboard or a joystick controller to give the digital equivalent. This is another program teachers love.

You should be already receiving issues of the APX catalog if you've sent in your warranty card for your ATARI Home Computer. You can also obtain catalogs from your local Atari retailer or write APX at:

P.O. Box 427
155 Moffett Park Drive, B-1
Sunnyvale, Calif. 94086

Complete ordering information for any of the APX products is included in the catalog.

APX
ATARI® PROGRAM EXCHANGE

SPECIAL FEATURE/INTERNATIONAL

COMPUTER EDUCATION IN THE ORIENT

With thousands of ATARI Home Computers being used in schools throughout the United States, the purchase of a handful for two schools in Hong Kong hardly seems news. But, when you consider the special problems of using computers in Asia, it is a breakthrough.

The acceptance of personal computers for secondary education in Hong Kong faces a major cultural hurdle—language. Written Chinese contains thousands of individual characters, far too many for current microcomputers to process efficiently and still leave room in their memories for graphics and other functions. The solution? Chinese students simply learn English in order to use their computers. You could say they use English as a "secondary programming language."

The First Computer Class in a Hong Kong Secondary School

Sister Margaret Wong, Principal of St. Paul's Secondary School for Girls in Hong Kong, is leading the introduction of small computers in that city's schools.

Two years ago, Sister Margaret was herself introduced to the exciting educational possibilities of small computers when Frank Parking, Chief Inspector of Math in the Education Department, visited St. Paul's to discuss a computer studies pilot program.

Several months later, Sister Margaret attended a computer education seminar organized by Onflo International, the distributor for ATARI Home Computers in Hong Kong. Her discussions with a group of teachers and computer representatives convinced her that St. Paul's should join the pilot program.

"In a fast developing society like Hong Kong," says Sister Margaret, it is important that we educate our next generation so they can understand and use computers."

In September, 1980, St. Paul's was the first secondary school in Hong Kong to offer Computer Studies as a subject. Today they feature a small but well-developed program built around two ATARI Home Computer systems. Even though this may seem modest by American standards, Sister Margaret has structured a course of study that stresses programming and practical applications.

The language used is BASIC, and most of the lessons are in lecture form. Each student is allocated an additional hour of computer time every two weeks to do her homework or practical studies. At the end of the year, groups of three or four pupils hand in a special project for review. Topics have varied from telephone bills, payrolls and taxation to space landings, traffic light control systems, graphic designs, songs and calendars. Each student must also pass a two-hour written examination.

Sister Margaret feels the ATARI Home Computers have added a valuable dimension to St. Paul's course of study in many areas. "With some basic theory and practice, computers can, in fact, become a useful tool, doing whatever we want them to, accurately and faithfully in an untiring manner."

A COMPUTER WHIZ KID IN HONG KONG

Another educational institution, the Hong Kong International School, has recently purchased nine ATARI Home Computer systems to expand their Computer Studies program. Fifteen year old Zul Arism, a student at the school who is considered the resident "computer whiz kid," was commissioned by the Hong Kong Mass Transit Railroad to write a computer program illustrating the construction progress of their new subway system.

Zul, of Chinese and Indonesian parentage, was immediately attracted to the advanced graphics capability of the ATARI Home Computer. His program divides a map of Hong Kong into several separate screen segments that illustrate construction progress in each major sector of the subway. The screen displays a graphic illustration of the work in progress, showing the various stages of completion, and includes information on soil and geological conditions.

ATARI COMPUTERS FOR HONG KONG'S PUBLIC LIBRARIES?

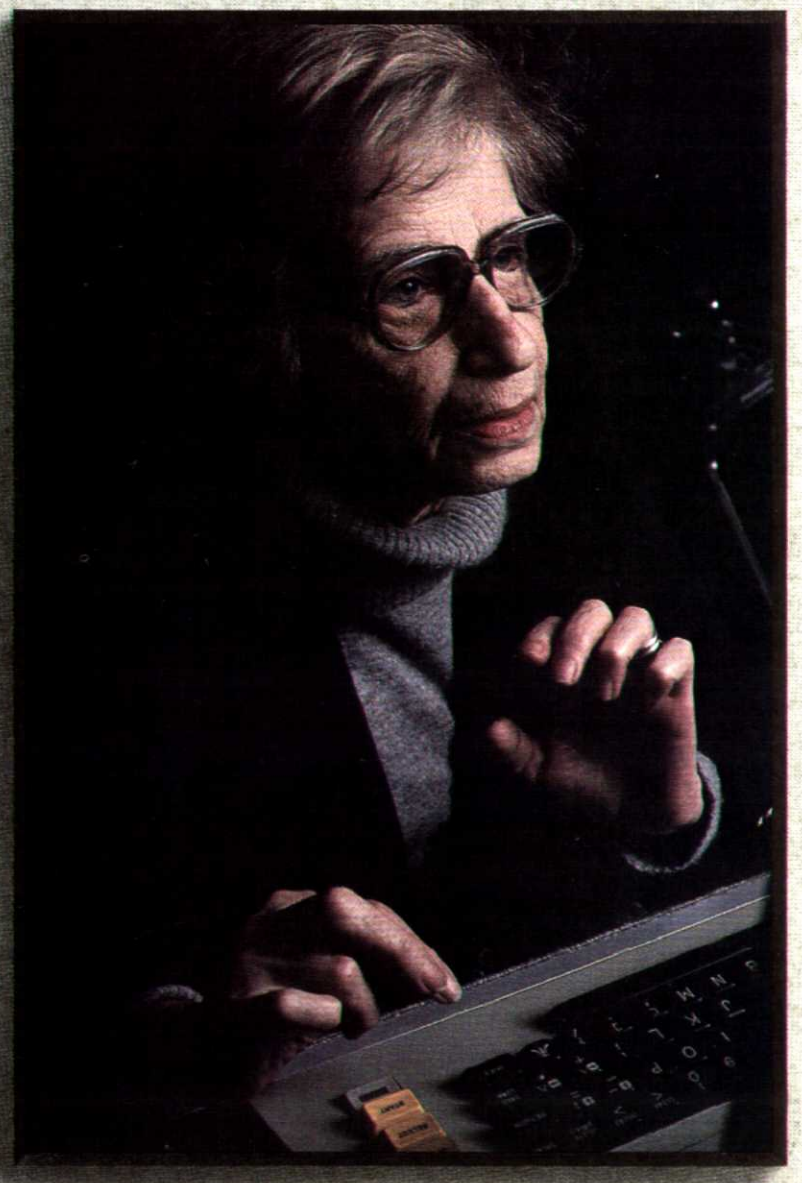
Dominic Cheng, President for Onflo International, reports that his company is considering the donation of an ATARI Home Computer system to each of the public libraries in Hong Kong. According to Mr. Cheng, "The public libraries are a popular place for students in Hong Kong to do their studies. By placing ATARI Home Computer systems in the public libraries, we think those students whose families cannot afford their own systems would gain valuable access and experience with computers."

These first highly successful computer education programs have caused considerable excitement and interest in Hong Kong. Should the city be true to its character and traditions, Hong Kong may soon feature one of the more advanced computer education programs in the Far-East.

SPECIAL FEATURE

COMPUTER CLASS PHOTOS

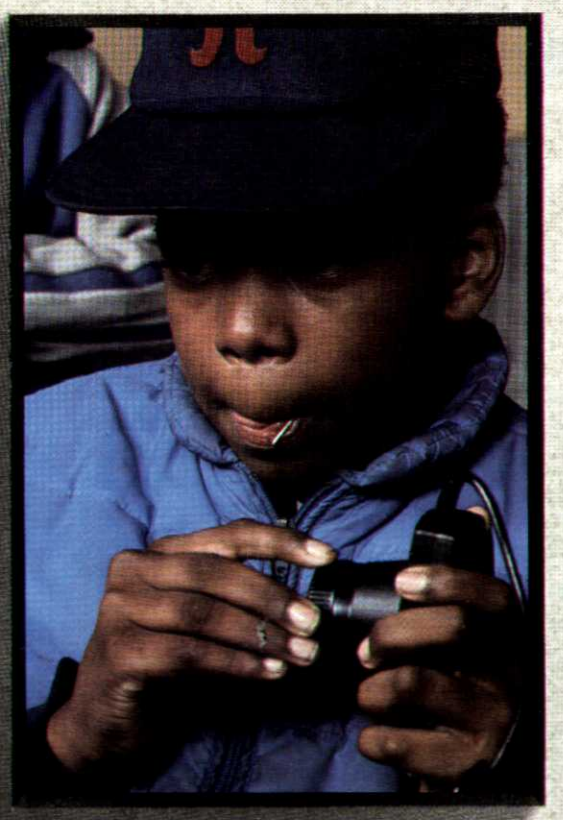
By Mark Tuschman



This photograph was taken at the Fromm Institute in San Francisco. It is a learning center for senior citizens. I think it is really wonderful to see the learning process continue on into our later years. I believe this was her first time with any computer.

This photograph was taken at the Capitol Children's Museum in Washington, D.C. Again, I just love the enthusiasm and excitement that very young children eminate in their interactions with the computer. I don't remember having taken this photograph; those turn out to be some of the best ones.

This photograph was taken at Stanford's Bing Nursery School. These two little boys were very competitive. They were playing a computer game that taught the concepts of "above" and "below" and "left" and "right." They were so excited that they could barely sit in their seats.

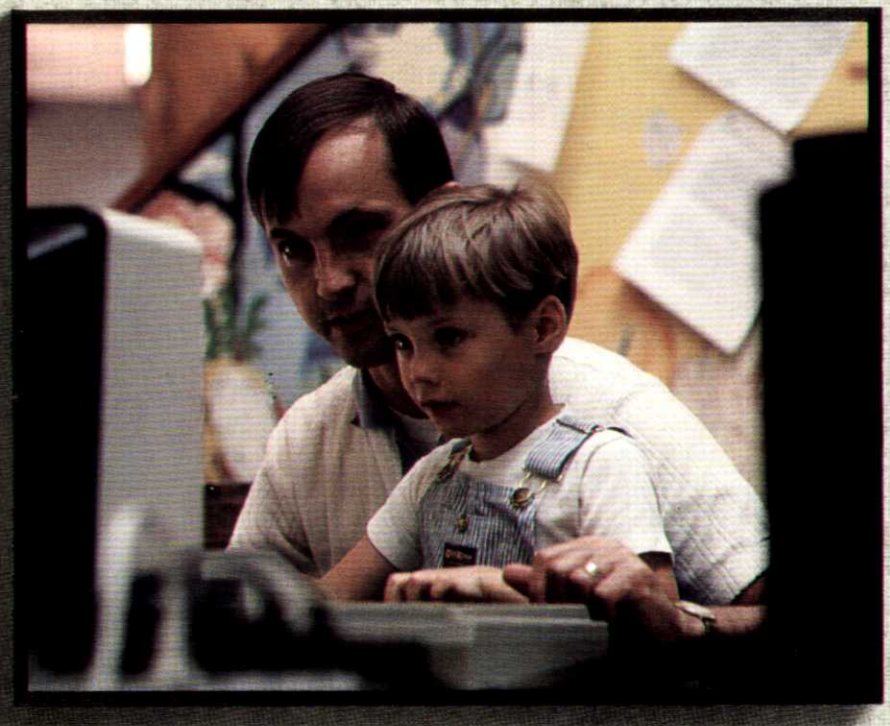


This photograph was taken at the Herbert Hoover Boy's Club in Menlo Park, CA. I don't know what he was doing with his ATARI Computer, but whatever it was, he was quite serious about it.

During the past half year, I've photographed many of the Atari Institute's projects.

The Institute provides grants, in the form of ATARI Home Computers, to a variety of experimental educational programs and schools.

The Institute believes that self-education is a lifelong creative activity, and that home computers enhance the informal learning environment. As a photographer, I feel it is very exciting to be able to capture and record this type of natural learning activity. It has been my experience in doing this work that the excitement of learning to use a computer transcends any age or place. I hope you will experience this as you see the photographs.



This photograph was taken at the Peninsula School Learning Fair in Menlo Park, CA. As I have a young son myself, I was particularly attracted to the warm and loving interaction between the father and his child.

This photograph was taken at the Recreation Center for the Handicapped in San Francisco. Although this little boy had severe physical disabilities, he had a wonderful spirit. He was able to have some success in the game he was playing by controlling the joystick. It must have been immensely satisfying —he was loving it.

SPECIAL FEATURE

ATARI HOME COMPUTERS GO TO COLLEGE

ATARI 800's AWARDED TO SCHOLARSHIP STUDENTS

College scholarships have been around for a long time now; today's high school achievers—and their parents—can often hope for some help in meeting the rising costs of higher education. But Rensselaer Polytechnic Institute (RPI) in Troy, New York, last fall added a computer-age twist to the tradition of undergraduate awards.

As part of the David M. Darrin Rensselaer Scholar Program, 21 top entering freshmen in RPI's Class of '85 received ATARI Home Computer systems—in addition to $2500-per-year stipends—in recognition of their academic promise.

Each of the 6 women and 15 men chosen for the first group of Darrin Scholars was given an ATARI 800 Home Computer, two disk drives, an interface module, modem, printer, color television, and assorted software. The systems will become the Scholars' personal property when they graduate. In the meantime, though, RPI faculty and administrators are studying how the Scholars use their home computers, and how such ready access to a computer system affects the educational and social lives of college students.

Of course, computers are nothing new at RPI. A powerful IBM mainframe unit, housed in a former church, can be accessed through 400 terminals spread over the campus. The Institute's interactive computer graphics facility, one of the best in the world, is used in a variety of research and design projects. But as RPI looks ahead to a more extensive computer network on campus, including the kind of personal work stations made possible by home computers, the Darrin Scholars are serving as willing "guinea pigs" in a pilot study of what such a future holds.

Already, some interesting results have emerged. All but three of the 1981 Darrin Scholars had had some prior experience with microcomputers. When they entered RPI, the members of the select group chose eight different science and engineering majors. Largely because they now own their own computers, several have since changed their majors to Computer Science or Computer and Systems Engineering.

TOM GRIFFIN

In their first year of college, the Scholars—and their friends—gave their home computers quite a workout. Along with the ATARI Word Processor software, one student's system was used to turn out ten term papers in just two weeks. Several Scholars and associated faculty and staff participated in testing a pre-release version of ATARI Pascal. While learning Pascal, the students had the heady experience of doing something that actually had an impact on Atari's software product development. (ATARI Pascal is now available through the Atari Program Exchange.)

The modems given to the Scholars came in quite handy. All but one of the students used their modems to tie into RPI's mainframe computer. As a group, in fact, they averaged more than three hours of such "connect time" each week. But the modems were most convenient at the end of the semester, when computing course projects were due and there were long lines of students waiting to use the public terminals on campus.

College students will be college students, of course, as the administrators of the Darrin Scholar Program soon found out. One of the Scholars used his ATARI Home Computer to generate the appropriate data for a science course lab that he missed—not the sort of thing that the RPI faculty wants to encourage!

It also became clear that the coming of the home computer age has done little to change the proverbially slack housekeeping habits of dormitory dwellers. The Scholars' dorm room closets were equipped with elaborate locks so that they could store their valuable home computers securely. But the students, naturally, didn't often take the time to put away their systems. Wiser now, the Program administrators have refocused their security efforts on the *outer* door locks of the Scholars' dorm rooms.

TOM GRIFFIN

For three days each semester, the Darrin Scholars—and other RPI freshmen and sophomores who own microcomputers—were asked to keep diaries showing how they spent their time. Not surprisingly, the diaries suggest that the system owners spend far more time computing than the average student. Instead of isolating their owners, however, the students' home computers serve as a socializing influence: the diaries show that the students' programming activities often involve two or more students working together.

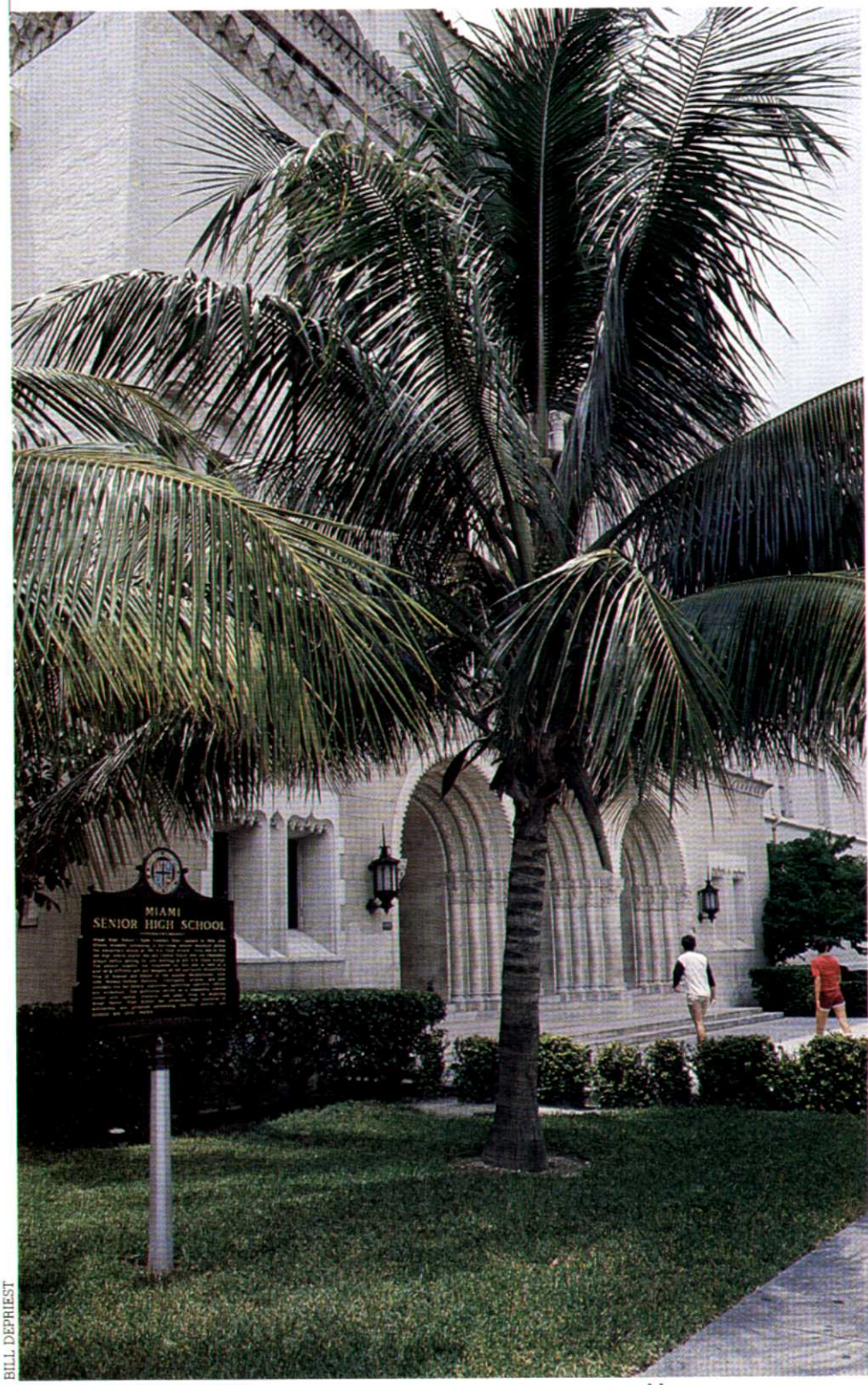
The first year of the Darrin Scholar Program at RPI has shown, finally, that college computer owners use their systems for more than coursework. In the way of recreational programming, many of the Scholars explored the graphics capabilities of their ATARI Home Computers by developing their own games. Dorm life being what it is, the owners of the home computers sometimes found their rooms turning into video game parlors. Two students solved this potential problem by declaring Saturday morning the "Arcade Hour" in his room. And that too is a valuable lesson learned as RPI prepares for the day when virtually all of its students, faculty, and staff are tied into a network of home computers.

By Dr. Steven Young; based on an article furnished by Drs. Richard A. Park, Sandra L. Newsome, and Geof Goldbogen.
Steven Young is the Software Writing Supervisor in the Atari Home Computer Division. At Rensselaer Polytechnic Institute, Richard Park is Professor of Geology, Director of the Center for Ecological Modeling, and faculty coordinator for the Darrin Scholar Program; Sandra L. Newsome, Assistant Professor of Psychology, specializes in the relationship between people and computers; and Geof Goldbogen is a consultant on microcomputers in the Office of Computer Services.

SPECIAL FEATURE

COMPUTER CLASS IS THE PLACE TO BE

OVER 700 ATARI COMPUTERS FOR FLORIDA'S DADE COUNTY



BILL DEPRIEST

By Jim Carr

What happened when the nation's fourth largest school district decided to buy nearly 700 ATARI 800 Home Computers?

The result was just plain computer mania. The computer classrooms quickly became *the* place to be, particularly at lunchtime. That's when a growing percentage of the 230,000 daytime students at the Dade County (Miami, Florida) Public Schools could be found clustered around ATARI Home Computers, clamoring for free time.

Naturally, some wanted to play electronic games—PAC-MAN, Missile Command, and Space Invaders. But programming was just as popular, and many students used their ATARI 800 Computer consoles to learn business and word processing applications.

"To the kids, programming is fun," acknowledged a pleased Marilyn Neff, the Director of Basic Skills at the Dade County schools and a key person in the drive to computerize classrooms in the district, which encompasses areas as diverse as the state's largest city, Miami, and tiny Opalocka, population: 2,000.

Marilyn Neff had reason to be satisfied. After just one year of limited operation, the computer program at the huge (245 schools) district was an unqualified success. Nearly 170 ATARI 800 Computers were installed at the beginning of the 1981-82 school year, and before the year had ended, the district had purchased another 460 ATARI 800 Computers—the largest single purchase of microcomputers ever by a school district.

Classes featuring ATARI Computers were among the most popular on the district schedule. But Marilyn Neff and John Stimson, the Computer Education Coordinator, faced a far more difficult challenge. Computer

education at the Dade County schools had existed in a sort of educational never-never land.

"There's no place for Computer Education (in a typical curriculum)," Stimson said. "It doesn't really fit into math, business, or science, although it is to some extent math because programming is taught by the math department. Teachers who are teaching computer programming have to be certified in math or business—there is no separate certification for programming."

Because there was no clear definition of where computer education belonged, standards for admission to computer classes varied from one Dade County school to another.

"One of the main problems the district has faced is that, in the state of Florida's education code, there's no officially recognized area for computer education," Stimson explained. It soon became obvious to the Dade County school administrators that they were in a position to help plot the future of computer education in Florida.

John Stimson and Marilyn Neff felt a highly structured, organized curriculum was necessary to help control the program's rapid growth. So, Stimson and a committee of teachers spent the summer working to develop a systematic, formalized set of classes that would lead students from a general introduction to computers in elementary school to advanced programming, robotics, and computer architecture in high school.

Students Teach Younger Students

"The committee's first challenge was to produce a curriculum, then apply to the State Board of Education for approval," Stimson said. One of the more innovative aspects of the curriculum calls for students to play an active role in the instructional process by tutoring younger children.

"For example, junior high students will spend a part of their day at elementary schools, helping both the students and the teachers," Stimson said. "Some teachers, particularly those new to computers, don't understand the total picture, and the more experienced kids can help them."

"We want to make computer literacy a basic skill, just like reading and math," said Marilyn Neff. We have established a set of goals, and computer literacy among our students is a major one. They (the board members) recognize the importance of the computer to the student at school and in life after school.

"We established a task force of various people within the school system," she added. "They considered the nature of computers and their relationship to students, what roles computers play in the educational process, what should the computer do for the students, and what kind of computers to look for."

One of the task force's major responsibilities was to determine which microcomputer would best meet the district students' needs. The ATARI 800 Home Computer was the final choice because of the software available, especially educationally oriented programs, the machine's durability, and Atari's commitment to education.

With school about to open again, what plans do Neff and Stimson have for incoming students?

"We're going to give money to schools that need to buy additional software," explained Marilyn Neff. "Another possibility is to develop software of our own to enlarge our computerized instructional programs in reading and math."

She would like to see a district-wide data communications network set up. "There's a lot of good programming being done by students and teachers," she said. "But in a system this large, it's difficult to determine who's doing what — we don't want two people working on the same project without our knowing about it."

Stimson agreed that a central communications network would be valuable, and thinks plans to form computer clubs and publish a newsletter are steps in that direction.

The newsletter—to be published once or twice monthly—will feature articles on software being used in the district, developments in hardware and software, what's going on in the various schools' computer programs, editorials, and "speak-out" columns by students.

With all the activity and interest in computer education, this is an important period for Stimson and the Dade County Public Schools: "Dade County is the largest and most populous county in the state and generally we have to take the lead in most new educational programs," Stimson concluded.

BILL DEPRIEST

Jim Carr is a senior writer for Marketing Publications in the Atari Home Computer Division.

SPECIAL FEATURE

ATARI COMPUTER CAMPS

FIRST BIG SUMMER OF PROGRAMMING FUN

By Jim Carr

The musical magic within the ATARI Home Computer had the two teen-aged girls under its spell at the San Diego Atari Computer Camp.

Candace Shockley and Maria Smith, working side-by-side as usual (they were the best of friends, eating together, playing tennis together, and yes, rooming together on the University of San Diego campus), had just programmed 16 measures of the once-popular song, "What the World Needs Now is Love," into their ATARI 800 Computer.

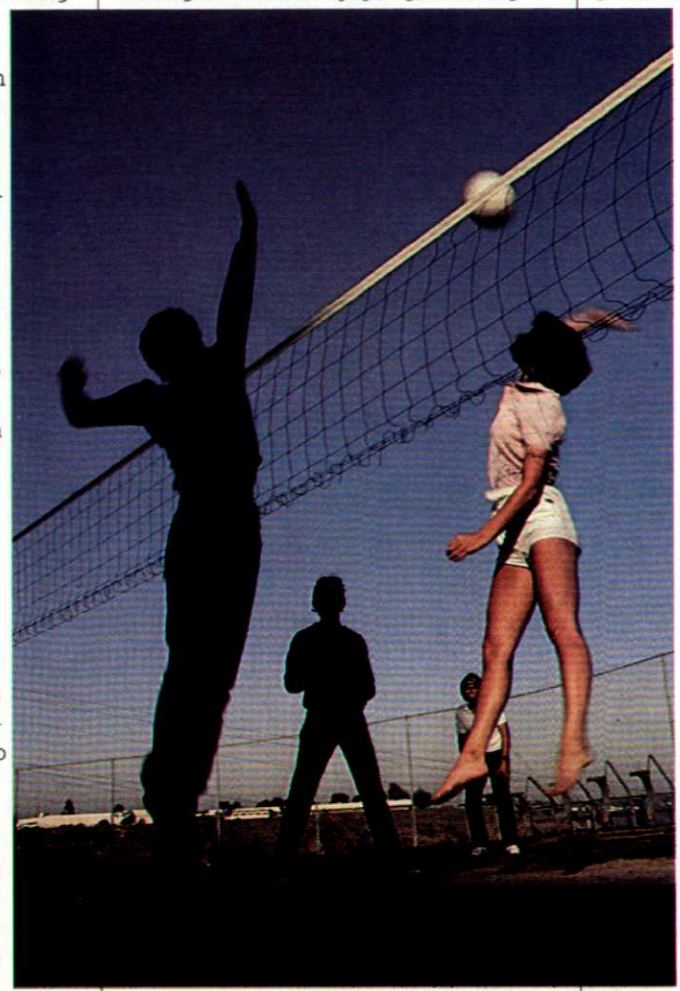
When they typed RUN and played their program back on the television speaker, they were rewarded with beautiful music...until somewhere in the 13th measure, that is, when a sour note brought the program to a discordant end.

Try as they might, neither Candace nor Maria, 16-year-old high school juniors from Inglewood and Walnut Creek, Calif., respectively, could figure out the bug. Even Richard Pugh, the head instructor at the San Diego Atari Camp, was momentarily puzzled before he saw a way to help the long-time friends solve their problem.

"Trying to program the notes, read the music, and put it all together in my mind..." Pugh muttered as he replayed the program once more before listing it on the TV screen.

When he finally spotted the problem, he gently prompted the girls to the source of their error: "Do you see what it is?" he asked after narrowing the trouble down to one area of the program. Candace eventually answered, "We left out a line—connected two lines, really." That, plus a misplaced comma (it should have been a period), caused the program to abort on an unmelodious sound.

That the two piano-playing teenagers wound up programming music in San Diego, one of three Atari Computer Camp sites in the United States this summer, was no coincidence. In fact, Pugh had deliberately funneled their creativity in that direction.



"In the beginning, we use projects that interest the kids to teach them the programming," explained Pugh, a computer-education instructor in the Cupertino, Calif., school district.

"The kids here at the Atari camp learn programming through little programs that mean a great deal to them —something that is a reflection of their total personality."

"Many people think that programming a computer must be difficult," added Bob Kahn, director of the Atari Special Projects team that developed the curriculum for the camps. "We've tried to change this idea by encouraging the kids to have a good time by learning how to make their computer do things that interest *them* personally.

"The reward for the kids is not so much that they've learned to program, but the control and self-confidence this ability gives—the feeling that, 'I'm in control.' The picture they created on the screen might be interesting, but the true reward is the control the kids have over that picture," said Kahn.

This computer-education philosophy was an obvious winner at the Atari Computer Camps, the first such endeavors fully sponsored by a major home computer manufacturer. In addition to San Diego, Atari Computer Camps were also held at the Asheville School in the North Carolina foothills, and East Stroudsburg State College in East Stroudsburg, Pennsylvania.

Just as they do at most summer camps, the counselors and instructors at the Atari camps emphasized fun. The campers played tennis, went swimming, were taken to the beach, or saw movies—*Tron*, the Walt Disney Productions film featuring special sound effects generated by an ATARI 800 Home Com-puter, was a favorite among the San Diego campers.

But the campers—ranging in age from about 10 through 18—were at the camps to learn about computers.

The experience of Mike Bailey, a 15-year-old high school freshman from San Jose, is a typical example. Mike, the only camper to attend both four-week sessions held in San Diego, spent the summer writing a program to catalog information about animals.

Mike's program allows him to store on diskette any animal's name, habitat, description, and major food source. The information can then be retrieved via an alphabetic menu Mike had written into the program.

Mike, who had had only a brief bit of experience with computers prior to going to the Atari camp, admitted that he'd "only begun to scratch the surface of programming." But he also said, with a grin on his face, "I'm impressed with my own program. I wasn't sure I had enough knowledge to write it. It's still in rough form, but it has all the basics."

A quick look around the two computer labs showed numerous other similar examples.

Doug Deel, a 14-year-old freshman from Valley Christian High in Sunnyvale, Calif., had programmed a game he called "ZINGER- ZAPPER." The title appeared on the TV screen one streaking letter after another amid flashing colors. The game itself, however, wasn't working quite right:

"They're just a few statements that are wrong," he said.

Another San Diego camper, R.T.Henrickson of Western Springs, Illinois, was working on a game he called "Drunken Bum" in which the player—i.e., the "bum"—tried to catch cartoon figures moving quickly across the TV screen. Each time the bum intercepted a figure, he'd successfully "beg" another nickel, dime, or quarter, according to R.T., who was also working on two other games and harbors a desire to "produce an arcade game someday."

Unlike a majority of the first-year Atari campers—almost 70 percent had no prior experience on computers—R.T. had "dabbled" on the ATARI 800 Computer he got last winter.

"I wouldn't have come to camp if it hadn't been a computer camp," he emphasized.

One evening during the campers' free period—the only time they were allowed to play the arcade-style ATARI Computer games while at camp—R.T. found a voice synthesizer too intriguing to pass up. The synthesizer responds to typed commands by pronouncing words phonetically in readily understandable English.

After typing a number of sentences, a wide smile appeared on R.T.'s face as he typed "R.T. FONE HOME."

The synthesizer's voice didn't sound like "E.T.'s," the alien in the film *E.T. The Extraterrestrial*, but it still brought a look of amusement to R.T.'s eyes.

"Camp's been great," he laughed—just the sort of memorable experience that will last a lifetime!

ATARI JOINS THE FORCE

Look out, Darth Vader! Atari, Inc. and Lucasfilm, Ltd. have announced joint plans to develop and market video games for ATARI Coin-Operated machines, home video game systems and Home Computers. Lucasfilm is the well-known producer of the continuing "Star Wars" saga and "Raiders of the Lost Ark*." Industrial Light and Magic, the special effects division of Lucasfilm, recently completed the special effects for three of this summer's blockbuster films, "Star Trek II," "Poltergeist" and "E.T."

Raymond Kassar, Chairman and Chief Executive Officer of Atari, Inc. said, "We look forward to working with a company as innovative and creative as Lucasfilm. The association is a natural since both companies are leaders in our respective fields."

So hold onto your joysticks. You may see "Centipedes in Space" joining The Force before too long.

*Trademark of LUCASFILM, LTD., used by Atari, Inc. under license.

ATARI TO SPONSOR TV SCIENCE SHOW

Atari, Inc. will enter the limelight as the exclusive sponsor of the new, highly acclaimed "*Discover,* the World of Science" television program, airing this September on about 75 stations across the country. Hosted by actor Peter Graves, "*Discover*" offers an informative look at the world of science and is designed for family viewing. The program staff will distribute a study guide to math and science classes throughout the U.S. to include in their assignments. Atari is co-producing segments of the program which explore computer-related topics.

It's a great chance for the whole family to learn more about the fascinating world of computers, and some of their newest applications. This program is part of Atari's television plan for the fall, which includes television commercials to be shown during the World Series and Emmy Awards. If there are people out there who haven't yet heard about ATARI Home Computers, they certainly will by the end of 1982.

WIN ATARI COMPUTERS AND GAMES AT McDONALDS

If you're one of the millions of people who visit a McDonald's restaurant between August 15th and October 15th you could win a valuable prize from Atari. Each participant will receive a "Rub'n Win" game card featuring the ATARI Computer games Missile Command, Star Raiders, Asteroids and Centipede. If you uncover a ZAP, you lose! But when you match special symbols you could win McDonald's food prizes or an ATARI Home Computer System or Video Computer System. So the next time you deserve a computer break, visit your local McDonalds!

ATARI HOME COMPUTERS FOR DoD DEPENDENTS SCHOOLS

The Department of Defense has ordered nearly 1400 ATARI Home Computers and accessories for use in Dependents Schools around the world. These schools educate approximately 140,000 dependents of U.S. military and civilian personnel of the Department stationed overseas, and include grades kindergarten through 12, and a 2-year college. That would make them the ninth largest school system in the nation, according to Dr. Dennis Bybee, Computer Education Coordinator for the Department.

In announcing the contract, Tom McDonough, Senior Vice President of Sales and Marketing for Atari's Home Computer Division said, "It is gratifying to us to know that this contract award was made after thorough evaluation of competing computer systems on the basis of application software available, hardware and systems software, documentation, maintenance and training to be provided."

Delivery of the first systems will begin in September of this year, with the remainder over the 5-year life of the contract. The computer systems will be used in the DoD Dependents. Schools programs for computer literacy, computer-aided instruction, computer science and administrative support for the schools.

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NEW PRODUCTS

THE BOOKKEEPER BY ATARI

PROFESSIONAL ACCOUNTING FOR THE HOME OFFICE

There are currently over six million home-based businesses operating in the U.S. Ask the owners of these businesses what their biggest problem is and probably nine times out of ten you'll hear, "keeping the books."

When it comes time to write checks, send invoices or prepare tax reports, getting the necessary information together and making all the figures balance can be a major headache. Now, relief is on the way with The Bookkeeper by Atari. This professional accounting package is ideally suited for the small business operated out of the home, garage or small office. Even professionals like lawyers, real estate agents and consultants may find The Bookkeeper an answer to their accounting needs.

With The Bookkeeper, you can organize your accounting system to gain a better day-to-day knowledge of how your business is doing. This information will help you manage costs, anticipate cash flow, and save a lot of checkbook juggling. Combined with your ATARI Home Computer System, The Bookkeeper will quickly and accurately generate Profit and Loss Statements that show where you're making or losing money.

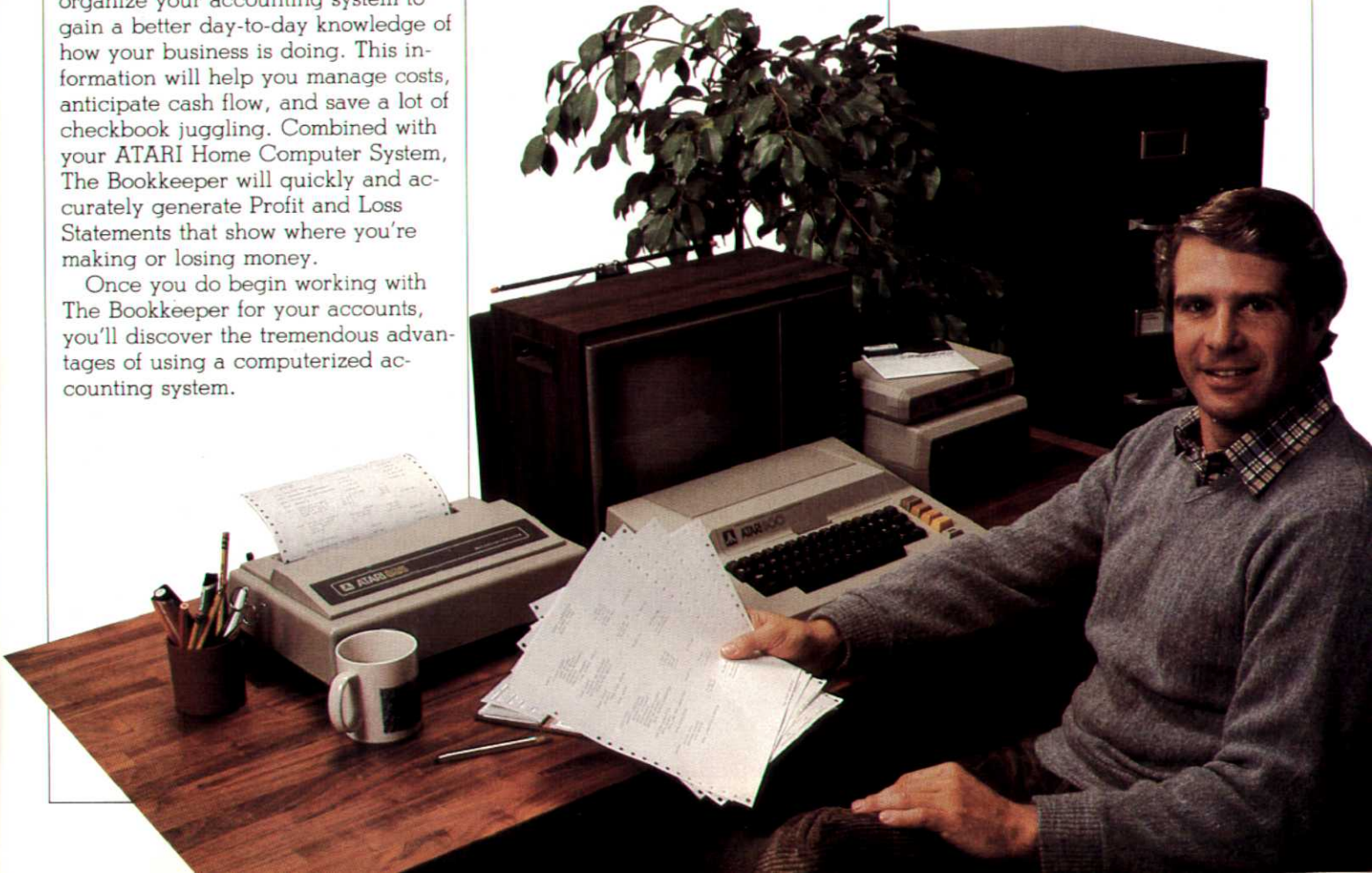
Once you do begin working with The Bookkeeper for your accounts, you'll discover the tremendous advantages of using a computerized accounting system.

It will create Balance Sheets, so you can manage your assets and liabilities more efficiently. And Accounts Receivable and Payable Reports to keep a better eye on where your money is coming from and where it's going. You can also generate lists of Checks and Invoices Written, Cash Received, Customers and Vendors (in numerical or alphabetical order), and even a General Ledger. Having this information at your fingertips can help you arrange your financial picture. And that's likely to be noticed by the people you do business with, including your banker.

The Bookkeeper is easy to use and self-guiding. Entry prompts help you enter dates, names and dollar amounts in the proper places. The practical User's Guide and a sample diskette of company data allow you to familiarize yourself with its operation *before* you start entering data for your own business.

This powerful, professional accounting program is perhaps the wisest business investment you can make, paying for itself in time savings alone. So why spend hours with a green eyeshade, grinding pencils to a stub and getting frustrated. Put The Bookkeeper to work and you'll free yourself to deal with the more creative aspects of your business.

(Complete on four diskettes with User's Guide. Requires ATARI 800 Home Computer with 48K RAM and an ATARI BASIC cartridge, ATARI 810 Disk Drive, ATARI 825 Printer, and ATARI 850 Interface Module.)



HOME/OFFICE

PUTTING THE BOOKKEEPER TO THE TEST

By Jim Inscore

Marge Moffat keeps the books for her husband's home-based consulting business. Mike Drysdale is a CPA with a list of clients who demand the utmost attention to financial detail. Executive Paul Mula maintains a valuable investment portfolio that includes rental properties, stocks and bonds, and other assets.

What one thing could these three have in common? All three were selected as "Beta" test users for Atari's latest home office program — The Bookkeeper.

Beta Testing: Out Into the Real World

For programs such as The Bookkeeper, Beta testing is an essential part of Atari's rigorous test procedure for software programs.

The procedure begins with "Alpha" testing, a process that involves pushing a program to the limit of its data handling abilities. The next step, Beta testing, involves picking appropriate users to try a program in a real life testing enviornment. Every effort is made in Beta testing to check for learning ease, error-free operation, and overall user friendliness.

In choosing Beta testers for The Bookkeeper, it was important to find users who fit into the group for whom the product was intended. Atari sought small business operators, preferably ones who operate out of their homes and who hadn't used a computerized accounting system before. Beta testers were provided with The Bookkeeper software, existing documentation, and technical help from Atari in getting the software working.

Custom-Tailored for the Home Office

The Bookkeeper was designed to help people like our Beta testers with a serious problem.

As gratifying as it is to be your own boss and set your own hours, no one who runs their own business ever seems to be able to climb out of the mounds of paper that pile up around them. Even worse, most can afford an accountant's help only a few times a year — usually at tax time.

It's this situation that puts small businesses at a competitive disadvantage. Big corporations can afford big computer systems that crank out financial statements at a moment's notice, enabling them to keep their eyes on the bottom line at all times. The small business person often has to work late just to get his or her checkbook to balance.

The Bookkeeper is designed to give these people a competitive edge — by providing a reliable, easy-to-use, and inexpensive source of computerized financial record-keeping.

The Proof Is In the Pudding

What kinds of reactions did we get from our Beta testers? Did they find The Bookkeeper useable, useful and understandable?

Paul Mula's investment business had been setup to run on his ATARI 800 Computer with VisiCalc. Each of his rental properties was maintained on a separate sheet with separate checking accounts for each. "But," admits Paul, "it was virtually impossible to consolidate these records to where they made any sense."

After working with The Bookkeeper for a while, Paul found that it was capable of providing just what he needed. "The Bookkeeper saves time," he noted, "but more importantly, it's providing more consolidated information than I could ever get my hands on before." Paul finds the reports both informational enough and flexible enough to fit his home business application precisely.

While Paul Mula devotes only part-time to his investment business, CPA Mike Drysdale makes a full-time job of helping other businesses handle their finances. "My clients are all relatively small — $50,000 to $250,000 a year businesses," says Mike. "Generally, a small business person doesn't have a set of books — just a checkbook and tax records." Given these facts, Mike was eager to try The Bookkeeper and see how it worked for his clients' books.

Mike found several features in The Bookkeeper that made it particularly useful for the small business. "Most

computerized accounting systems deal strictly in numbers ... numbers that you have to sometimes trace back to their source for reconciliation purposes. The Bookkeeper provides room for descriptions with each entry — so you can write little memory joggers on each that make the job of reconciliation a heck of a lot easier."

While Beta testers Mike Drysdale and Paul Mula both had experience using standard accounting techniques, Marge Moffat had just begun learning to use a simple ledger-based bookkeeping system when she was offered a chance to try The Bookkeeper.

At first, she was a little leery. "When I started using the computer it was completely foreign to me. But with just a few tries, it all became clear." Marge now has all of her books from last year up on The Bookkeeper and is keeping track of this year on a month-by-month basis.

"The nice thing now is that we'll be able to know exactly where we stand at the end of every month. Before, you never could be quite sure. My husband, who doesn't like to deal with ledgers and balance sheets and so forth, can look at the statements from The Bookkeeper and understand them right away. We plan to keep right on using it."

All three Beta testers seemed to be equally pleased with the results from The Bookkeeper. But Paul Mula probably best summed up The Bookkeeper from the standpoint of practical business use:

"I use my ATARI 800 Computer for a variety of things. But if I were to use it just with The Bookkeeper, that alone would justify buying the system."

Jim Inscore is the Writing Manager for Marketing Publications in the Atari Home Computer Division.

HOME COMPUTING

SCOTT'S ROOM

ANNUAL DESIGNER SHOWCASE HIGHLIGHTS AN ATARI HOME COMPUTER

By Harriette Jensen

Every child has a "dream" room, one in which each object has a special meaning for the child. Scott Thompson is one of the lucky ones, for his dream became a reality as a part of the fifth annual San Francisco Decorators' Showcase held last May in the historic Pacific Heights residence, Le Petit Trianon.

The sunny third floor room overlooks San Francisco Bay and contains several advanced electronic components, including a complete ATARI 800 Home Computer system.

Tony Torrice of Just Between Friends designed the room with the help of Scott Thompson, a bright, active 12-year-old boy who attends Central Middle School in San Carlos. Scott, who has a severe hearing impairment, was chosen to assist Tony in designing a room that would be both beautiful and especially adapted for a disabled child.

The ATARI 800 is housed in a movable learning center, part of the KS System of modular furniture designed and introduced by Tony Torrice at the Showcase. Each of the three learning centers in the room has a power strip and a sliding tray on which a project or piece of equipment can be placed and rolled out. Like a roll-top desk, the module can be closed when not in use.

The other two learning centers contain Scott's stamp collection and a Sundheiser system. The Sundheiser converts the sound of Scott's TV into infrared light and then back into sound through a compatible headset. This allows Scott to adjust the volume so that he can hear the TV without disturbing the rest of the household.

Scott, like most children his age, has been exposed to computers before. He and his brother, Damon, have spent a lot of time playing video games. And now that Scott has been able to use the ATARI 800 in the room, he has decided to take a computer class as his elective for this year. "It was the first thing he asked for," says his mother. Both Tony Torrice and Scott's parents remarked that computer skills open up vocational and educational opportunities for a deaf child. "It gives them a chance to be contributors."

Another piece of equipment especially suitable for Scott is the TDD (Telecommunication Device for the Deaf) furnished by Pacific

Continued on page 19

S. MATOI

Continued from page 18

Telephone. This device is provided free of charge to any deaf or hearing impaired person who requests it, and types out messages transmitted by regular phone lines. When the phone "rings," a desk light flashes to let Scott know that he has a call. When he is asleep, a device placed under his mattress vibrates, waking him.

Scott's interest in color is evident throughout the room. For example, the walls are painted a sky blue. Tony, who has done extensive work as a color consultant for the handicapped, explained that a person's skin acts as a prism, breaking color up and spreading it across the body, with certain colors affecting specific parts of the body. Scott chose blue and green as the colors for his room; blue relates to the eyes, nose, ears and top of the head, and green affects the throat. Tony's experience is that, in six to nine months of exposure to the color specific to the child's problem, the child develops new diet habits, shows a 40-45% improvement in grades and, in this case, starts hearing new sounds.

In addition to the computer skills he has picked up while working on the project, Scott has learned something else. Each weekend of the Showcase, Scott helped Tony explain to visitors about "his room" and about the ATARI 800. He also appeared in a news sequence on TV's "Superkids."

According to Tony, these experiences have "really improved Scott's social skills and his ability to communicate." And one of the things he likes to talk about is his room at the Showcase. Recently, he asked his parents if they could "do my room just like this one."

Harriette Jensen is the Sales Communications Coordinator for the Atari Home Computer Division.

HOME COMPUTING

HOME COMPUTER PHOTOS

SOLUTIONS TO WHERE TO PUT YOUR ATARI HOME COMPUTER

In the last issue of THE ATARI CONNECTION, we asked for photographs from all of you ATARI Home Computer owners who have skillfully created workable solutions for integrating your ATARI Home Computer into your home, home office, or workplace.

We received a number of responses from you with many attractive ideas for home computer work or entertainment stations, including a number that were original designs and self-constructed.

We enjoyed all of the photos, and chose four unique "ATARI Home Computer Centers" to share with our readers in this issue.

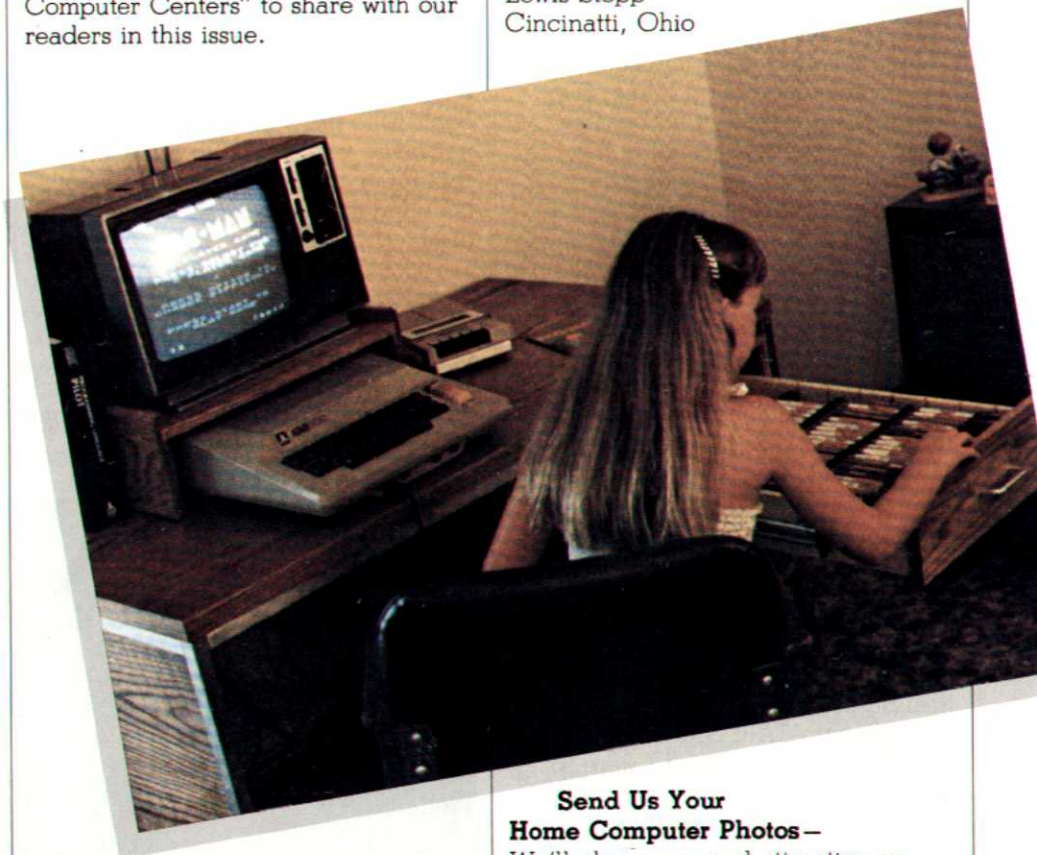
Dear ATARI CONNECTION:

I built a desk to provide storage space for my ATARI Home Computer system, program cassette tapes and cartridges, and my computer magazines.

The desk was built in my home workshop from materials purchased from hardware stores and lumber yards.

We enjoy using our ATARI Home Computer and look forward to receiving and reading each issue of THE ATARI CONNECTION.

Sincerely,
Lewis Stepp
Cincinatti, Ohio



Lewis Stepp designed and built this finely crafted home computer desk which provides convenient work space and adequate storage for software and manuals.

Send Us Your Home Computer Photos–

We'll choose several attractive examples and if we publish them you'll receive a *free one year subscription* to THE ATARI CONNECTION. Send your photographs to:

Home Computer Photos
c/o THE ATARI CONNECTION

The Greubbels have their ATARI Home Computer system set up on an attractive desk Mr. Gruebbel built himself.

Dear ATARI CONNECTION:

We have set up a special place for our ATARI Home Computer that allows instant use by all the family. My wife (Emily) is shown using the computer to write her new book, *Portrait of Love* that she just sold to Dell Publishing. Her editor commented on how clean the copy was. Emily was opposed to the purchase of the computer at first, but now I can't get at it because she uses it all the time. I will probably buy another ATARI Home Computer just for the children and I.

Our computer is used much more than any other home entertainment device we have. The children are learning math and reading skills. I keep business records on it and Emily writes her books. (She even lets me play Star Raiders when I am good.)

Sincerely,
Charles L. Mims
San Antonio, Texas

Dear ATARI CONNECTION:

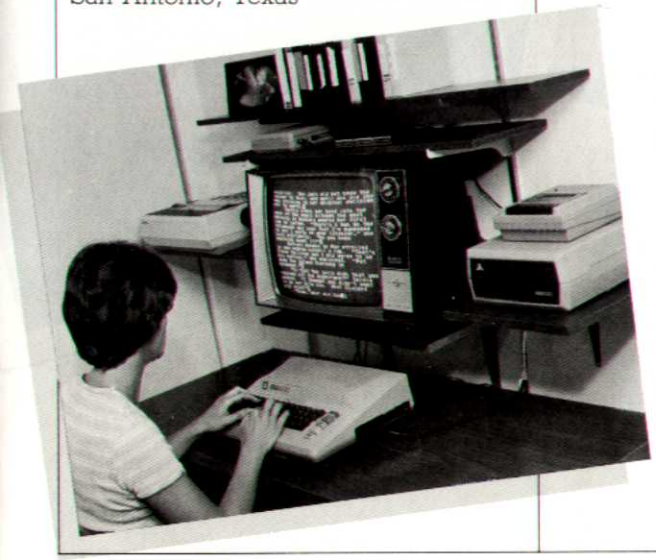
My ATARI Home Computer system is set up on my home built desk unit.

The "cubbyholes" on either side of the kneewell are sized to accommodate disk drives, and a shelf in the back of the kneewell holds joysticks and other small items.

The "dropped" computer shelf puts the keyboard at a comfortable level and "lifts" the television for easy viewing.

Our entire family uses the ATARI Home Computer and though this design is fairly simple, it's attractive enough to be used in our living room. I'm sure a skilled cabinetmaker could add a few more finishing touches, but this was only my second attempt at cabinet work.

Yours truly,
S.L. Gruebbel
Birmingham, Alabama



Mr. Mims keeps business records, the kids learn math, and Mrs. Mims writes novels on their ATARI Home Computer system.

Dear ATARI CONNECTION:

We have had our ATARI 800 for about two years and use the system both for business and entertainment. As time went by, we found ourselves buying more and more Atari hardware until now, we have a complete ATARI Home Computer system. With all this equipment, we really needed to design a desk to house the system.

We first bought a walnut grained television table on carpet casters. As you can see from the photo, the bottom shelf houses the joysticks, paddle controllers, software and other odds and ends.

The second shelf houses the disk drive, interface and program recorder.

We can move the unit anywhere in the house where it is needed. I have even moved this entire unit from my home to a local college to demonstrate some of the capabilities of the ATARI Home Computer to a computer class.

Truly yours,
Richard Bade
Hudson, Michigan

The Bades designed their computer workstation to be compact and movable.

KIDBITS

FOCUS ON KIDS

By Teddi Converse

A Users' Group Just for Kids

The Balthasers are an ATARI Home Computer family. Ken Balthaser is an engineer for the Atari Home Computer Division. Eunice Balthaser dresses up like PAC-MAN for Public Relations events. And Neil, 15, the youngest in the family, is working on getting together a Users' Group just for younger kids in the Sunnyvale/San Jose area.

He has had an ATARI Home Computer for two years. Besides spending his time organizing a Users' Group. he is also currently working on a sound editor program that features graphics combined with sounds. He also developed a form which is used by the secretaries in his dad's office.

"My dad taught me how to use BASIC," Neil said, "and he's going to try to teach me how to use Assembly Language next."

Neil has taken two computer classes at the school he attends in Mountain View and this year plans to take the new computer class his school is offering.

"I'm glad my school offers computer classes," said Neil, "but I wish they would offer a variety of computers to work with instead of just one company's machines."

Neil would like to get teenagers and other kids like himself who are interested in ATARI Home Computers together in the Sunnyvale/San Jose area to begin his Users' Group soon. "It would be great if we could share what we know about the ATARI Home Computer and maybe develop some programs for our age group," Neil said. "And I'm really looking forward to learning more about programming and computers in general."

As computer classes become more popular, young programmers like Neil are getting together all over the country to share their knowledge, programs and common interests together. Like Neil says, "It's more fun to learn with other people. A lot of times you find out you know a lot more than you think you do."

Columbia Space Shuttle Simulated With "Turtle" Graphics

Joshua Ferguson of Sanford, Florida just recently won first prize at Southside Elementary School's Science Fair. Then he went on to win a second place ribbon and an honorable mention in the county-wide Science Fair held at a nearby community college. He was the only double prize winner out of nearly 400 entries at the county Science Fair.

Seven-year-old Joshua won with a graphics and text computer program written in ATARI PILOT using "Turtle" graphics. His program showed a flashing replica of the space shuttle in the graphics window with the engines glowing bright red. And while you watched the space shuttle revving up, the text window rotated through ten written explanations of the various stages in the flight of Columbia. Joshua got the idea for his project while watching and hearing all the excitement surrounding the Columbia space shuttle.

The Ferguson family has an ATARI 400 and both Joshua and his ten-year-old sister, Stephanie, can be found using it much of the time. Joshua's dad, a professional photographer, also keeps his business files on the computer.

Joshua likes ATARI PILOT and thinks it's "a lot easier than BASIC." "I also like to play Missile Command and Caverns of Mars," he said.

The whole Ferguson family enjoys using the ATARI PILOT Programming Language. "I think the Turtle Graphics are neat," says Joshua.

Joshua Ferguson

Neil Balthaser

KIDBITS

FIND THE BUG WINNER

Last issue, we had a *Late Bug* that caused our computerized Stop Watch to tick off some rather "long seconds." Actually, there were *three Bugs* causing this tardy behavior. We asked you Bug Finders to catch these three Bugs, then send us your solution along with some interesting applications for your Stop Watch. Once again, the response was great. In fact, your suggestions were so imaginative, we decided to share some of the more interesting ones.

Chris Meid of Hillsborough, California times the lawn sprinklers while he's inside playing with his ATARI Home Computer. Steven Leser of Massapequa Park, New York uses it for cooking, mainly timing three minute eggs. And Todd Jespersen of Modesto, California, uses his timer to see how long his sister stays on the phone, and times how quickly his pet hamster can run through a maze!

As usual, most of you Bug Finders found the Bugs, (including Chris, Steve and Todd) so we once again held a *Find the Bug* prize drawing and the winner is: (drum roll please...) Jim Buckman of Alberquerque, New Mexico!

Jim will receive an ATARI Computer PAC-MAN game cartridge for his efforts.

Our Bug Finder wrote the following letter on how he found all three of the Late Bugs:

Dear ATARI CONNECTION:

I found the three bugs in the Summer issue of THE ATARI CONNECTION's *Find the Bug* contest.

The first bug is in line 30;POKE 16,0. This can be corrected by changing line 30 to:

```
30 POKE 18,0:POKE 19,0:POKE 20,0
```

The second and third bugs are in line 70. First, the "PEEK(19)*156", in the equation, is incorrect, and lastly, the number 69.9227434 should be 59.9227434. Corrected, line 70 looks like this:

```
70 CO=INT((PEEK(18)*65536+PEEK(19)
   *256+PEEK(20))/59.9227434)
```

Here are some uses for the debugged computer clock that I thought up, some less practical than others. They include a typing speed timer, a metronome, a move timer for word-games, an exercise timer, a calibrator and adjustor for antique clocks, a model race car lap timer, a sprinkler timer, and a timer for solving one's Rubik's cube.

I am 13 and live in Alberquerque, New Mexico. Atari literature and software is scarce down here, so I eagerly await your magazine. I purchased my ATARI 400 last November, and I am now working in Assembly Language. I hope to market a game I am working on and put the earnings from it towards an ATARI 800 Home Computer, but that is still a long way off.

Sincerely,
Jim Buckman

Listed below is the *Find The Bug* program from last issue that Jim debugged. You too can debug the Stop Watch program by simply making the corrections to the "bugged" program lines that Jim pointed out in his letter.

Once you've debugged the watch, simply press [RETURN] and watch your valuable time "blip away."

```
10 PRINT "NUMBER OF SECONDS TO COUNT";:INPUT S
20 CO=S*59.9227434
30 POKE 16,0:POKE 19,0:POKE 20,0
40 OPEN #1,12,2,"S:"
50 GRAPHICS 2:SETCOLOR 2,0,0
60 POSITION 6,3:PRINT #6;"ELAPSED:"
70 CO=INT((PEEK(18)*65536+PEEK(19)*156+PEEK(20))/69.9227434)
80 POSITION 9,6:? #6;CO
90 IF CO>=S THEN 110
100 GOTO 70
110 POSITION 3,9:PRINT #6;"YOUR TIME IS UP!"
```

PROGRAM PUZZLE

By Tom Hudson

Our Program Puzzle helps you learn how to keep track of your *lunch money*. But first you have to unscramble the program lines and place them in the right order before the Program Puzzle will work.

To unscramble the lines, first type the program into your ATARI Computer exactly as they are printed.

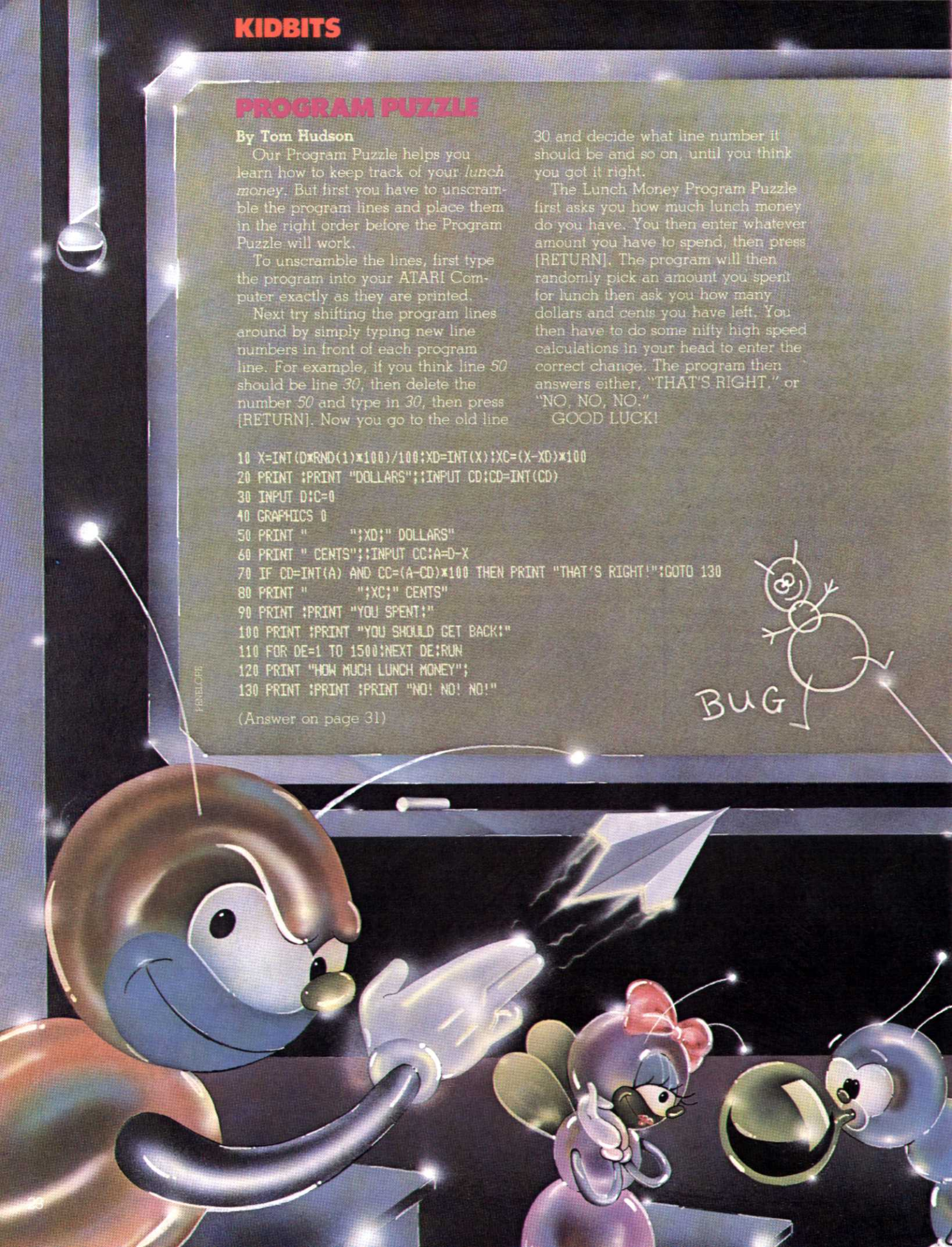
Next try shifting the program lines around by simply typing new line numbers in front of each program line. For example, if you think line *50* should be line *30*, then delete the number *50* and type in *30*, then press [RETURN]. Now you go to the old line 30 and decide what line number it should be and so on, until you think you got it right.

The Lunch Money Program Puzzle first asks you how much lunch money do you have. You then enter whatever amount you have to spend, then press [RETURN]. The program will then randomly pick an amount you spent for lunch then ask you how many dollars and cents you have left. You then have to do some nifty high speed calculations in your head to enter the correct change. The program then answers either, "THAT'S RIGHT," or "NO, NO, NO."

GOOD LUCK!

```
10 X=INT(D*RND(1)*100)/100:XD=INT(X):XC=(X-XD)*100
20 PRINT :PRINT "DOLLARS";:INPUT CD:CD=INT(CD)
30 INPUT D:C=0
40 GRAPHICS 0
50 PRINT "      ";XD;" DOLLARS"
60 PRINT " CENTS";:INPUT CC:A=D-X
70 IF CD=INT(A) AND CC=(A-CD)*100 THEN PRINT "THAT'S RIGHT!":GOTO 130
80 PRINT "       ";XC;" CENTS"
90 PRINT :PRINT "YOU SPENT:"
100 PRINT :PRINT "YOU SHOULD GET BACK:"
110 FOR DE=1 TO 1500:NEXT DE:RUN
120 PRINT "HOW MUCH LUNCH MONEY";
130 PRINT :PRINT :PRINT "NO! NO! NO!"
```

(Answer on page 31)



FIND THE BUG

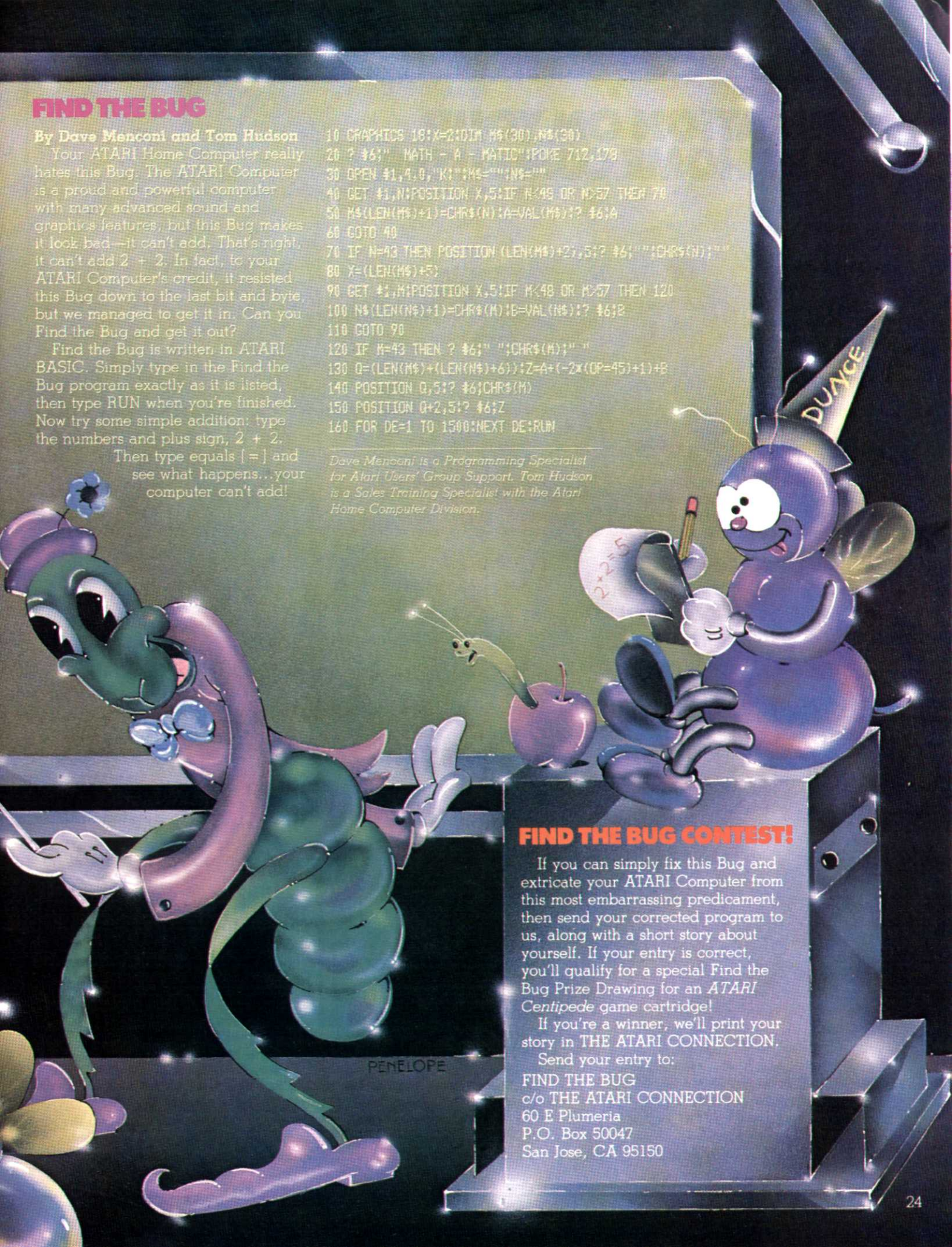
By Dave Menconi and Tom Hudson

Your ATARI Home Computer really hates this Bug. The ATARI Computer is a proud and powerful computer with many advanced sound and graphics features, but this Bug makes it look bad—it can't add. That's right, it can't add 2 + 2. In fact, to your ATARI Computer's credit, it resisted this Bug down to the last bit and byte, but we managed to get it in. Can you Find the Bug and get it out?

Find the Bug is written in ATARI BASIC. Simply type in the Find the Bug program exactly as it is listed, then type RUN when you're finished. Now try some simple addition: type the numbers and plus sign, 2 + 2. Then type equals [=] and see what happens...your computer can't add!

```
10 GRAPHICS 18:X=2:DIM M$(30),N$(30)
20 ? #6;"  MATH - A - MATIC":POKE 712,178
30 OPEN #1,4,0,"K":M$="":N$=""
40 GET #1,N:POSITION X,5:IF N<48 OR N>57 THEN 70
50 M$(LEN(M$)+1)=CHR$(N):A=VAL(M$):? #6;A
60 GOTO 40
70 IF N=43 THEN POSITION (LEN(M$)+2),5:? #6;" ";CHR$(N);"
80 X=(LEN(M$)+5)
90 GET #1,M:POSITION X,5:IF M<48 OR M>57 THEN 120
100 N$(LEN(N$)+1)=CHR$(M):B=VAL(N$):? #6;B
110 GOTO 90
120 IF M=43 THEN ? #6;" ";CHR$(M);" "
130 Q=(LEN(M$)+(LEN(N$)+6)):Z=A+(-2*(OP=45)+1)*B
140 POSITION Q,5:? #6;CHR$(M)
150 POSITION Q+2,5:? #6;Z
160 FOR DE=1 TO 1500:NEXT DE:RUN
```

Dave Menconi is a Programming Specialist for Atari Users' Group Support. Tom Hudson is a Sales Training Specialist with the Atari Home Computer Division.



FIND THE BUG CONTEST!

If you can simply fix this Bug and extricate your ATARI Computer from this most embarrassing predicament, then send your corrected program to us, along with a short story about yourself. If your entry is correct, you'll qualify for a special Find the Bug Prize Drawing for an *ATARI Centipede* game cartridge!

If you're a winner, we'll print your story in THE ATARI CONNECTION.

Send your entry to:

FIND THE BUG
c/o THE ATARI CONNECTION
60 E Plumeria
P.O. Box 50047
San Jose, CA 95150

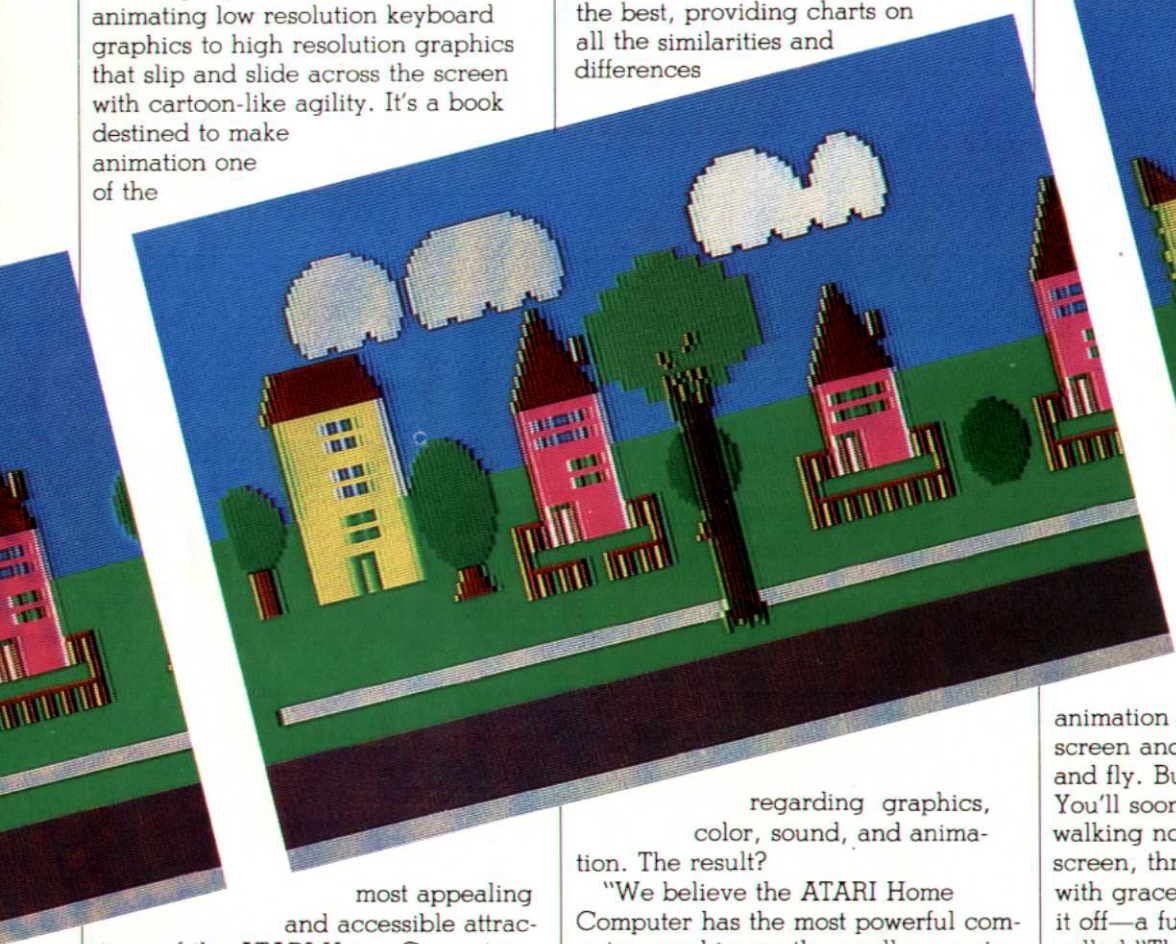
THE ARTS

ANIMATION ON YOUR ATARI HOME COMPUTER

By Jack Perron

David Fox and Mitchell Waite believe that anyone can learn how to create computer animated cartoons. And they have a convincing argument to back them up. These best-selling authors have teamed once again to write the *COMPUTER ANIMATION PRIMER*, scheduled for release soon by BYTE Books.

Their latest work takes the average BASIC programmer all the way from animating low resolution keyboard graphics to high resolution graphics that slip and slide across the screen with cartoon-like agility. It's a book destined to make animation one of the most appealing and accessible attractions of the ATARI Home Computer.



If you have ever tried animation in ATARI BASIC, you know it's not a simple task. Either your characters end up looking like robots, or they move as if stuck in a room full of jelly. *COMPUTER ANIMATION PRIMER* provides ideas and tools to help you break free and enjoy the art of animating as well as the techniques involved.

Part I of the book provides an in-depth look at the current state of the art in computer animation. You first are introduced to the theory and psychology of animation and about "high tech" computer graphics systems. Then the authors focus in on personal computers. They compare the best, providing charts on all the similarities and differences regarding graphics, color, sound, and animation. The result?

"We believe the ATARI Home Computer has the most powerful computer graphics on the small computer market today," say the authors. "This is especially true when the graphics are used for animation. Visual effects produced on the ATARI Computer are so dramatic that they approach arcade games in their sophistication."

Part II of the book is called the "hands on" section. Now the real learning begins. There are numerous program listings, but you can also buy a disk to avoid the eye strain or finger cramps. One point is worth repeating here: "You DO NOT need to understand Assembly language to use the examples in this book."

You start off at the lowest level of animation by creating a bird on the screen and watching it come to life and fly. But that's just the beginning. You'll soon have a funny little man walking nonchalantly across your screen, three dozen horses galloping with grace and dignity, and — to top it off—a full-scale animation exercise called "The Great Movie Cartoon."

Along the way, you'll delve into higher resolution modes and even mix them to take advantage of the many colors available. You'll also tap the simplicity of player-missile graphics and finally try your hand at the

wonders of fine-scrolling graphics.

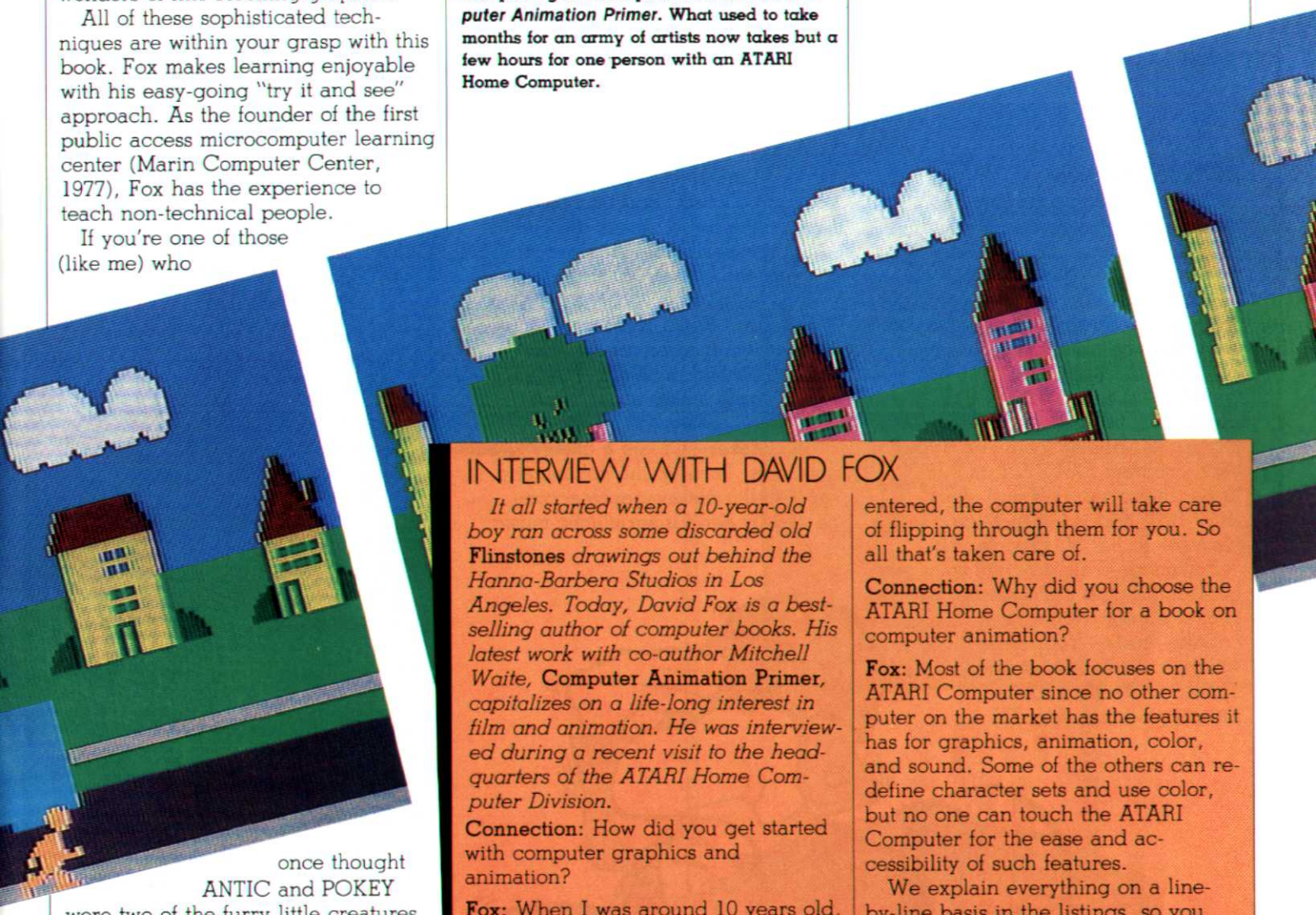
All of these sophisticated techniques are within your grasp with this book. Fox makes learning enjoyable with his easy-going "try it and see" approach. As the founder of the first public access microcomputer learning center (Marin Computer Center, 1977), Fox has the experience to teach non-technical people.

If you're one of those (like me) who once thought ANTIC and POKEY were two of the furry little creatures that chased PAC-MAN around all day, or that "collision registers" were the vital statistics kept by the highway patrol, you immediately qualify as a reader of this book.

I still don't really understand the technical details, but — thanks to Fox and Waite — I now know how to USE them on my ATARI Home Computer. So, if you feel there's a cast of animated cartoon characters trapped inside you, struggling to get out, the *Computer Animation Primer* may be just the book you've been waiting for.

Jack Perron is a Senior Writer with the Atari Home Computer Division.

Computer-generated pictures from the *Computer Animation Primer*. What used to take months for an army of artists now takes but a few hours for one person with an ATARI Home Computer.



INTERVIEW WITH DAVID FOX

It all started when a 10-year-old boy ran across some discarded old **Flinstones** *drawings out behind the Hanna-Barbera Studios in Los Angeles. Today, David Fox is a best-selling author of computer books. His latest work with co-author Mitchell Waite,* **Computer Animation Primer,** *capitalizes on a life-long interest in film and animation. He was interviewed during a recent visit to the headquarters of the ATARI Home Computer Division.*

Connection: How did you get started with computer graphics and animation?

Fox: When I was around 10 years old, I lived in Los Angeles, not too far from the Hanna-Barbera studios. Whenever they finished production of something like the *FLINSTONES*, they would throw all their old cell drawings away.

We kids used to go to the trash bins and grab all their old discarded cells. Lots of times you could get a sequence in order, with the frame numbers marked on the drawings. Then you could go over them and see exactly how it worked.

For films, you shoot the same picture over and over. Like, if you had the little man walking over a bridge, you'd have to sit there for hours, shooting the frames one after another. The nice thing about the computer is that once you get the five frames entered, the computer will take care of flipping through them for you. So all that's taken care of.

Connection: Why did you choose the ATARI Home Computer for a book on computer animation?

Fox: Most of the book focuses on the ATARI Computer since no other computer on the market has the features it has for graphics, animation, color, and sound. Some of the others can redefine character sets and use color, but no one can touch the ATARI Computer for the ease and accessibility of such features.

We explain everything on a line-by-line basis in the listings, so you don't even have to have a computer to learn from it. But if you do, you can use it to experience live animation.

Connection: Do you have to be an artist to be a computer animator?

Fox: There's some artistic skill needed but not that much. The computer helps a lot. I mean, you don't have to draw free-hand; there's not much you can draw outside of lines. The computer takes care of a lot of things that would ordinarily be a problem for people doing animation. So the computer does a lot of things for you, but you still must have a lot of patience. There's a lot of trial and error but the reward comes when you create something on the computer just the way you want it to be.

ENTERTAINMENT

PILOT PLAYGROUND

By Teddi Converse

The four Playground programs listed below let your turtle loose in a field full of fun and games.

ATARI PILOT (with "turtle" graphics) is a simple programming language designed to make programming fun and easy for the beginner and the expert alike.

Just insert your ATARI PILOT cartridge and turn on your ATARI 400 or ATARI 800 Home Computer. Type each program EXACTLY as it is listed, then type RUN and press [RETURN] and you'll be sliding into a playground full of computer fun!

Polkadots—This program splashes polkadots across the screen to the beat of a peppy tune.

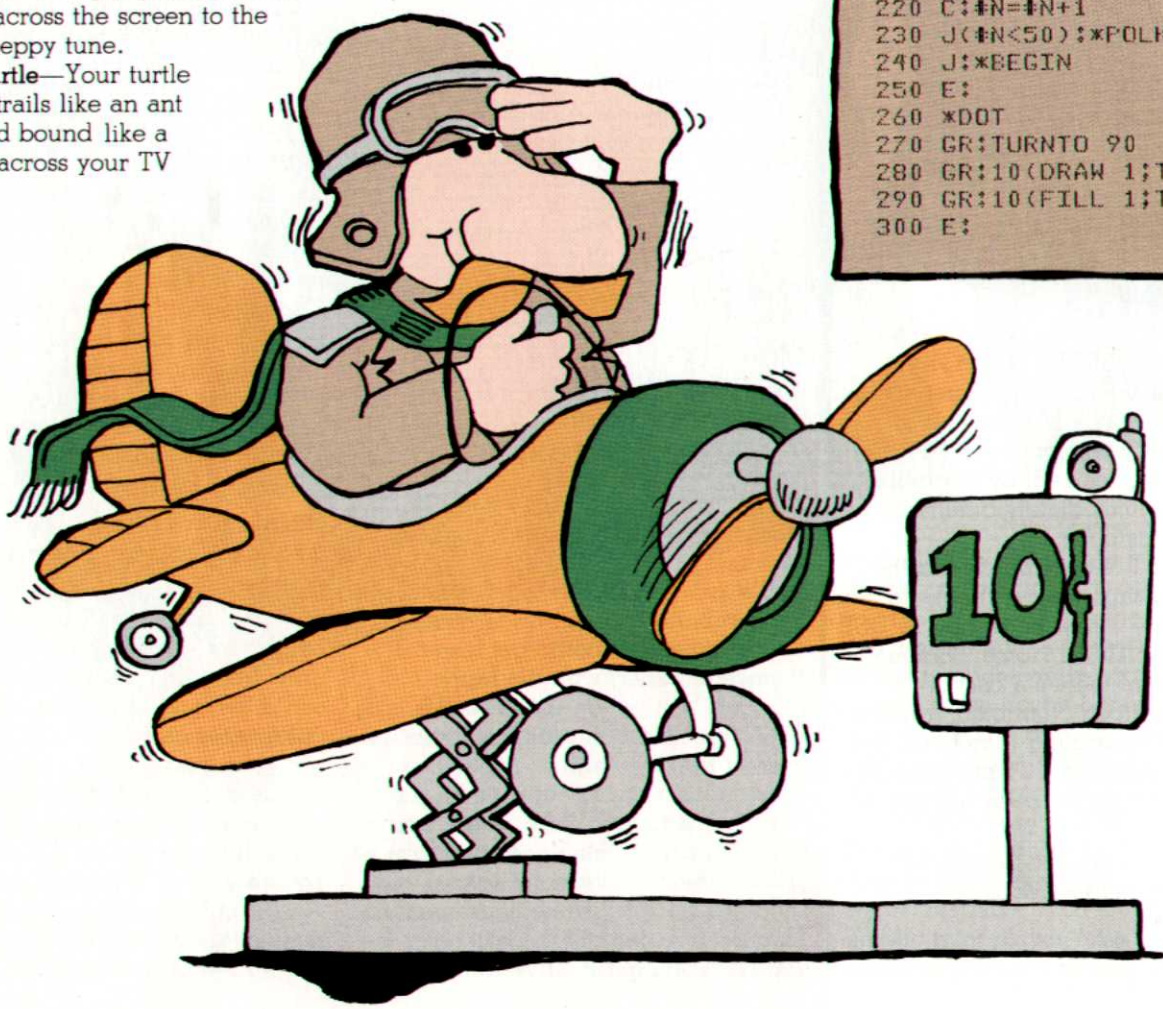
Daffy Turtle—Your turtle will make trails like an ant or leap and bound like a Kangaroo across your TV screen. Line 10 sets the angle of your turtle's turn, and line 40 tells how far the turtle travels before turning. Change the numbers at the end of each line for your turtle to travel a different path.

Polygon—You'll witness the ancient geometrical theorem of Pythagoras with this program. Watch how your PILOT turtle makes a circle out of a triangle.

Star Maker—Create a galaxy full of new stars! Turn up the volume and see a stellar extravaganza accompanied by eerie intergalactic music.

POLKADOTS

```
10 *BEGIN
20 C:#N=0
30 GR:CLEAR
40 T:
50 T: POLKADOTS
60 *POLKA
70 C:@B712=?\255
80 C:#X=?\150-75
90 C:#Y=?\62-31
100 C:#C=?\3+1
110 C:@B708=?\255
120 C:@B709=?\255
130 C:@B710=?\255
140 GR(#C=1):PEN YELLOW
150 SO(#C=1):13,17,20
160 GR(#C=2):PEN RED
170 SO(#C=2):13,18,22
180 GR(#C=3):PEN BLUE
190 SO(#C=3):15,20,24
200 GR:GOTO #X,#Y
210 U:*DOT
220 C:#N=#N+1
230 J(#N<50):*POLKA
240 J:*BEGIN
250 E:
260 *DOT
270 GR:TURNTO 90
280 GR:10(DRAW 1;TURN 18)
290 GR:10(FILL 1;TURN 18)
300 E:
```



DAFFY TURTLE

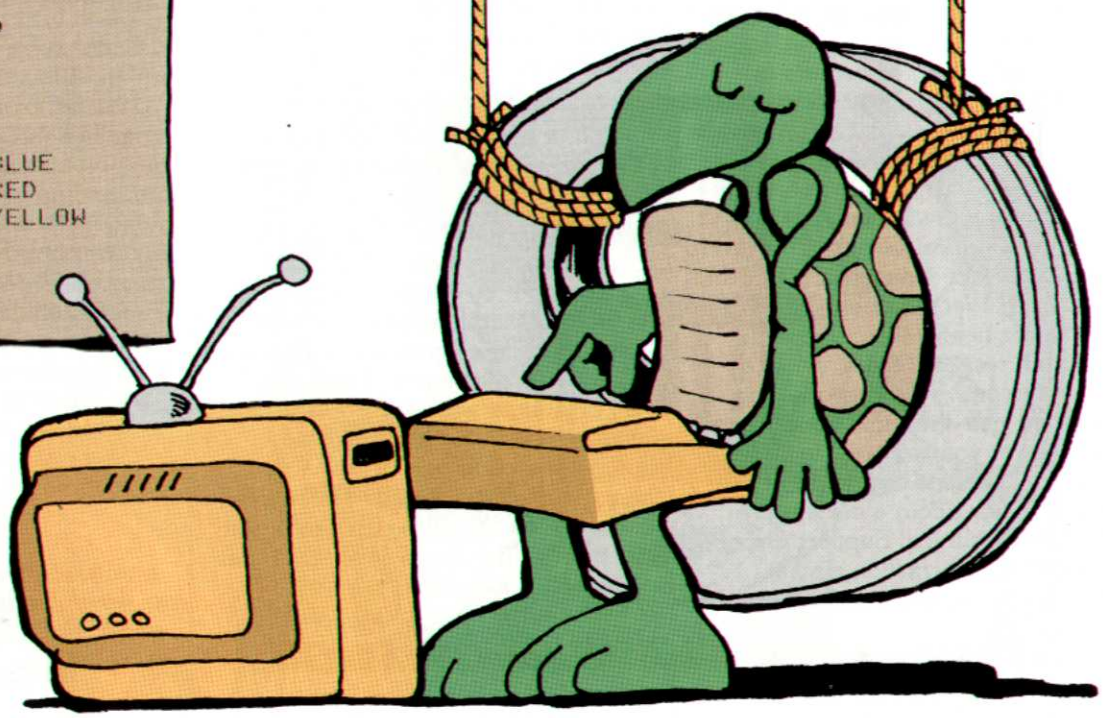
```
10 *LOOP C:#D=?\37
20 U:*LIMITS
30 U:*COLORS
40 GR:TURN #D;DRAW 13
50 J:*LOOP
60 *COLORS
70 C:#Z=?\3
80 GR(#Z=0):PENBLUE
90 GR(#Z=1):PENRED
100 GR(#Z=2):PENYELLOW
110 E:
120 *LIMITS
130 GR(%X>74):GOTO 74,%Y
140 GR(%X<-79):GOTO -79,%Y
150 GR(%Y>47):GOTO %X,47
160 GR(%Y<-31):GOTO %X,-31
170 E:
```

STARMAKER

```
10 *BEGIN
20 C:#N=0
30 C:#N=0
40 C:#X=?\80
50 C:#Y=?\40
60 C:#D=?\2
70 C(#D=1):#X=#X*-1
80 C:#F=?\2
90 C(#F=1):#Y=#Y*-1
100 *LOOP
110 C:#C=?\4
120 GR(#C=0):PEN ERASE
130 GR(#C=1):PEN YELLOW
140 GR(#C=2):PEN RED
150 GR(#C=3):PEN BLUE
160 GR:GOTO #X,#Y; DRAW ?\30; TURN 2
170 C:#N=#N+1
180 J(#N=180):*BEGIN
190 C:#Q=?\30
200 C:#W=?\10
210 C:#E=?\20
220 C:#R=?\10
230 SO:#Q,#W,#E,#R
240 J:*LOOP
```

POLYGON

```
10 GR:GOTO 0,-30
20 GR:TURN 270
30 C:#T=3
40 *LOOP
50 U:*COLORS
60 C:#D=360/#T
70 T:#T(DRAW 15 ; TURN #D)
80 GR:#T(DRAW 15;TURN #D)
90 C:#T=#T+1
100 J(#T=17):*END
110 PA:60
120 J:*LOOP
130 *COLORS
140 C:#Z=?\3
150 GR(#Z=0):PENBLUE
160 GR(#Z=1):PENRED
170 GR(#Z=2):PENYELLOW
180 E:
190 *END
200 E:
```



INSIDE ATARI

"THIS IS NOT A RECORDING"

by Kevin Rardin

"How do I start a Users' Group?"

"Do you have a bookkeeping program?"

"Does Atari give programming classes?"

These are just a few of the many questions—up to 3000 a day—fielded regularly by Atari's Customer Service staff. All kinds of people, from small children to computer program developers, call Atari Customer Service every day. And all of them hear a friendly human voice, not a recording, at the other end of the line.

To the Customer Service staff, no question is more important than yours. Usually, the Customer Relations Representatives—the ones who answer the phones—will be able to give you an immediate answer. If you have a particularly tricky question, they'll ask you to leave your name and number, and write up a "call report" so your question or problem can be passed along the next morning to one of Atari's Customer Relations Specialists.

Thoroughly trained experts in specific areas, the Specialists will ordinarily call you back with an answer within a few days. If you've posed a *real* stumper, they'll call on a third level of problem-solvers: Atari's Technical Support Group. This group investigates uncommon problems and looks for answers to questions that have never been asked before. A dedicated research team, it has access to the entire Atari organization—and puts the same considerable resources at your service, for free.

When Customer Service receives repeated calls about a certain problem, the Technical Support Group prepares an information packet, called a "Demopac," on the topic. The Demopac can then be sent to subsequent callers with the same question.

The Atari Customer Service staff, and the many people who support them, are no farther than your telephone. Depend on them to give your question immediate attention. They're "on line" to help you make the best use of your ATARI Home Computer, peripherals, and software. So whether your question is simple or complicated, feel free to call.

TOLL FREE ANSWERS ATARI CUSTOMER SERVICE

"How do I start a Users' Group?"

If you call Atari Customer Service with this question, a Customer Relations Representative will ask you for your name and address, work and home phone numbers, and the number of people interested in joining a Users' Group. (He or she will also ask if you know of an Atari Users' Group in your area.) You'll be sent a packet of information telling you everything you need to know about starting an Atari Users' Group. For the same information, you can also write to Users' Group Support, c/o Earl Rice or Mark Cator, 60 E. Plumeria, San Jose, CA 95134.

"Do you have a bookkeeping program?"

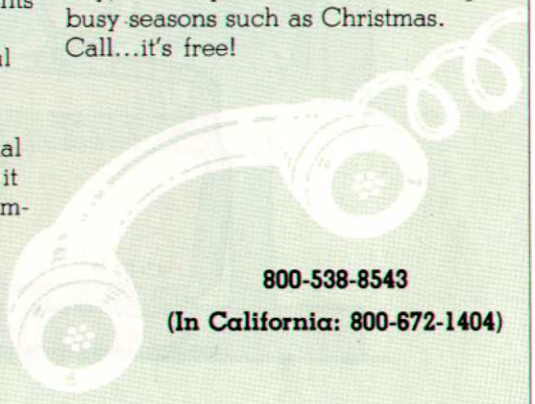
Yes! Very soon (sometime in October), you'll be able to buy The Bookkeeeper by Atari. You'll find it capable of maintaining a complete General Ledger, generating Accounts Payable and Accounts Receivable, and printing a wide variety of useful reports. It's perfect for anyone running a small business or managing home finances—even for professional bookkeepers. You'll be able to buy it alone or as The Bookkeeper Kit, complete with a numerical keypad to streamline the entry of all those numbers.

"Does Atari give programming classes?"

No, Atari doesn't sponsor programming classes for the public. However, programming *is* taught at Atari Computer Camps. A three-level series of programming kits called "An Invitation To Programming" is also available from many Atari Retailers. A User Group in your area may teach programming, and most community colleges teach programming.

Answers A Phone Call Away

Call Atari Customer Relations with any question or problem about your ATARI 400 or ATARI 800 Home Computer System. In case your question can't be answered right away, be prepared to leave a telephone number where you can be reached day or night. Phone lines are open from 6:00 A.M. until 5:45 P.M., (Pacific Time) Monday through Friday, with expanded service during busy seasons such as Christmas. Call...it's free!



800-538-8543

(In California: 800-672-1404)

VISICALC: HOME AND OFFICE COMPANION*

Osborne/McGraw-Hill

VisiCalc is one of the most popular programs in the small-business world. With VisiCalc, your ATARI Home Computer becomes an electronic worksheet with powerful calculation capabilities. In effect, your worksheet is the TV screen and your pencil is the cursor. The program not only calculates figures but remembers all your calculations — in case you want to revise or recalculate them quickly.

Most professional business people have come to rely on VisiCalc for designing their own custom worksheets and helping them answer complex money questions. As more and more people feel the pinch of tight money, they are thinking about starting their own home businesses. VisiCalc and the ATARI Home Computer team up to offer you big business power. But you may need help in designing programs to fit your business needs. That's where a new book can help. It's called *VISICALC: HOME AND OFFICE COMPANION,* by David Castlewitz, Lawrence Chisausky and Patricia Kronberg.

In the General Business section, you may find just the program you need for getting under way with your new home business. The "Business Start-Up Worksheet" helps you estimate how much money it will take to start you off. Initial costs and monthly expenses are inescapable facts of business life. In return for the few minutes it takes to type in the program, VisiCalc lets you try out various scenarios.

If you do find that your ideas for a home business are practical, there are some 50 programs in *VisiCalc: Home and Office Companion* to guide you toward success. You can plan sales strategies, evaluate your mail-order results, analyze your expenses, monitor cash flow and billing, and even brainstorm about financing possibilities.

The authors have also included some interesting programs (they call them "models") for personal use in the home. You can keep tabs on your personal finances, plan a vacation tour, or price your collection of coins. There's even a program on painting your house that will help you decide whether to hire someone or do the job yourself.

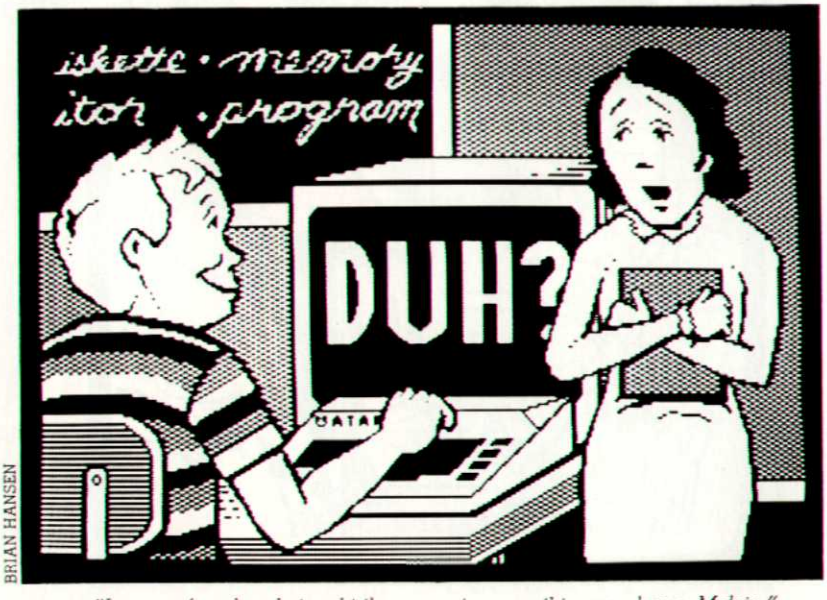
Some programs designed for a specific area may actually be used in more than one way. For example, "Grade Book" in the Personnel and Departments section. Obviously designed to help teachers keep track of student test scores, "Grade Book" can also be used in market surveys or product tests where results are tabulated.

Typing a VisiCalc program into your home computer is easier than typing an equivalent program in BASIC. The book shows you how. With a printout for each program, you can immediately see if you've entered it correctly. You'll learn how to enter values and labels, shift items around on the screen, and format your printouts for a professional look. It's a great way to learn VisiCalc.

You'll also learn some nifty formulas for finding answers quickly. For example, how would you like to know what kind of a house you can afford nowadays? Try the "Maximum Loan Amount" model in the Loans and Investments section. It takes your current salary, the percentage of your salary that you can afford to allocate for monthly payments, and the going interest rate, and — voila! — tells you how much you can afford to pay for a home. Then again, that's something you might not want to know!

For more information, contact:

OSBORNE/McGraw-Hill
630 Bancroft Way
Berkeley, CA 94710



"I see you've already taught the computer everything you know, Melvin."

BOOK REVIEWS

THE BASIC HANDBOOK*

by David A. Lien, CompuSoft Publications, Inc.

Many new ATARI Home Computer owners are coming over from the land of those "other" microcomputers. They may have experienced another BASIC dialect and think they can jump right into ATARI BASIC. But even though all BASIC languages may have been created equal, they have ventured far and wide to accommodate the differences from micro to micro. That's where *The BASIC Handbook* can help.

Every microcomputer uses different command and punctuation strategies to fit their machine's specific architecture. Since the Dartmouth days of its early beginnings, BASIC has sprouted its own Tower of Babel. Anyone wanting to transfer their knowledge of BASIC from one machine to another cannot possibly remember all the possible differences. That's why Dr. David A. Lien began his BASIC compilation in 1978. Now, with more BASIC languages emerging each year, there's a real need for it. This "Encyclopedia of the BASIC Computer Language" is already a best-seller, and destined to take its place among the "classics" of technical reference works.

If you're new to ATARI BASIC or desiring to know how your computer's language stacks up against the others, take a look at this book. It has every command of every BASIC dialect in the world. But unlike most encyclopedias, this one is chock-full of wit and wisdom. Dr. Lien writes with humor and empathy for the novice—and keeps one eye out for insights to pass along to advanced programmers.

For ATARI BASIC users there's also a special section devoted to your needs. It will help experienced newcomers over the hurdles and provide stepping stones for those wishing to venture out and translate BASIC programs from other computers. I wouldn't even try it without *The BASIC Handbook*! Even at $19.95, it's worth the investment!

BRIAN HANSEN

"The classroom's computer is for learning programming—not portfolio management, Muffy."

Answers for Program Puzzle Page 23.

```
10 GRAPHICS 0
20 PRINT "HOW MUCH LUNCH MONEY";
30 INPUT D:C=0
40 PRINT :PRINT "YOU SPENT:"
50 X=INT(D*RND(1)*100)/100:XD=INT(X):
XC=(X-XD)*100
60 PRINT "      ";XD;" DOLLARS"
70 PRINT "       ";XC;" CENTS"
80 PRINT :PRINT "YOU SHOULD GET BACK:"
90 PRINT :PRINT "DOLLARS";:INPUT CD:
CD=INT(CD)
100 PRINT " CENTS";:INPUT CC:A=D-X
110 IF CD=INT(A) AND CC=(A-CD)*100
THEN PRINT "THAT'S RIGHT!":GOTO 130
120 PRINT :PRINT :PRINT "NO! NO! NO!"
130 FOR DE=1 TO 1500:NEXT DE:RUN
140 FOR DE=1 TO 1500:NEXT DE:RUN
```

Next Issue:

Christmas Special from Atari—"A Gift for Everyone"

Juggle's Rainbow—Colorful new learning program that pre-schoolers can use in the classroom and the home.

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   Proof of purchase for ATARI Home Computer Hardware products: ATARI Owner Registration Card.
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All receipts, proofs of purchase and the ATARI 400™ Home Computer Owner Registration Card must be mailed together to be eligible for this offer and must be postmarked no later than February 28, 1983.

*Please keep copies of your receipts to confirm purchase dates should in-warranty repairs be needed. Materials received without an accompanying ATARI 400™ Home Computer Owner Registration Card will not be processed.

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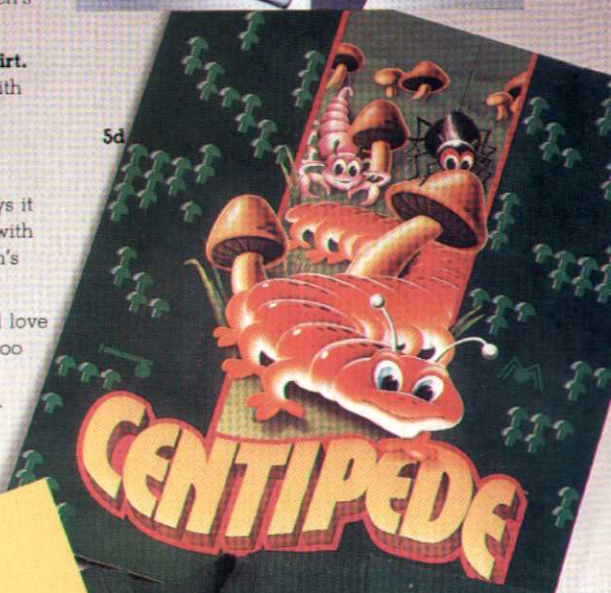

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