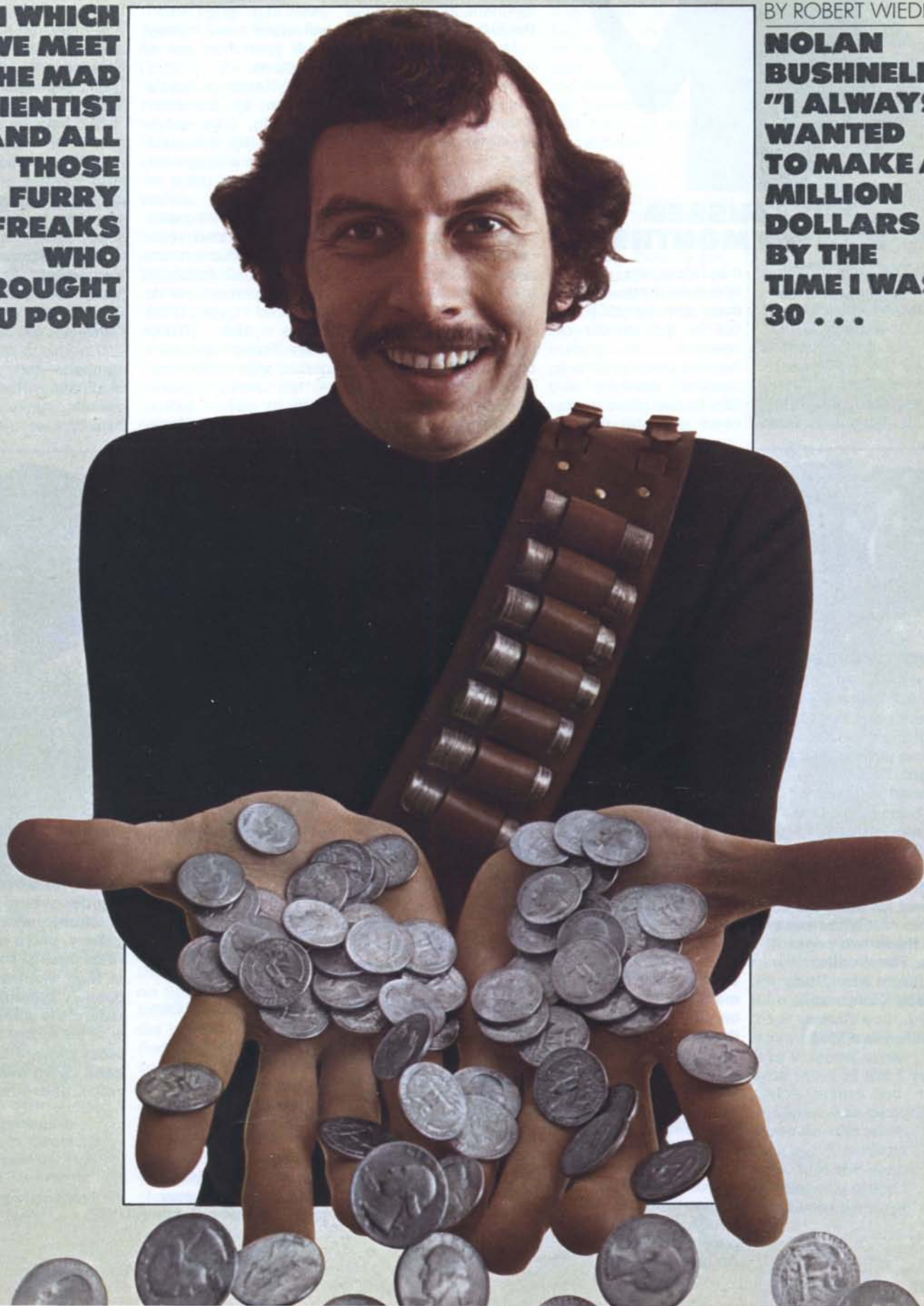


A FISTFUL OF QUARTERS

BY ROBERT WIEDER

**IN WHICH
WE MEET
THE MAD
SCIENTIST
AND ALL
THOSE
FURRY
FREAKS
WHO
BROUGHT
YOU PONG**

**NOLAN
BUSHNELL:
"I ALWAYS
WANTED
TO MAKE A
MILLION
DOLLARS
BY THE
TIME I WAS
30 . . .**





... BUT I MISSED BY TWO MONTHS"

Because the building is drab, vast, low, modular, and the color of bird dooky, you probably wouldn't expect it to be the world headquarters of a thing called Atari, Inc. (Atari is a Japanese word

that translates somewhere between checkmate and banzai.) It's out in the middle of nowhere; its pock-marked parking lot is a random, drunken affair. Its two glass doors open and spit people

out. They stride off like McGovern volunteers—mostly young and/or Chicano, women you could start parties with, men who look like Billy the Kid.

Inside is a lunchroom Tom Swift would pray in. But this is Los Gatos, California, well within the cultural orbit of America's quintessential suburb, San Jose. These people drive to lunch. They drive to the mailbox.

The reception foyer features a large arch of redwood slats. There are half a dozen futuristic devices humming, winking, belching, and chirping at you from both sides of the arch. These creations have names such as Pong, Gotcha, Rebound, and

Echo. They are arcade games—"electronic amusement devices," suggest the folks of Atari—and any two of them in a good room will make more money in a year than will a drugstore.

Pat Karns is Atari's director of domestic marketing. His pitch explains my presence here. "The average life of any normal game is three months; we've got Pongs working well into their second year. A good production run for a pinball machine is 3000 pieces; we've produced over 8000 Pongs and 10,000 Gran Traks. We start games with 2500 runs. A top arcade piece used to pull in \$45 a week; not only have

we created a \$200-per-week situation, we've got a Pong in Chicago knocking down over \$500 a week!" Pat sits back in his chair. There are folders on his desk, data on the pinball competition, Midway's Duck Hunt and Goal Tender. Chump change.

"Nothing in this industry," he adds simply, "has ever come near Pong as a money-maker. A normal pin-game production run is 500; we've had well over 500-order weeks." He smiles. The last time a product moved this quickly, they put Owsley in jail for it.

Beyond these mere numbers—the confetti of finance—there's a grinning reality: If profitability were water,



PROTOTYPE PONG

(not for sale)

An adequate arcade game pulls in \$10 a night; a good arcade game pulls in \$20 a night. This Pong—placed in a tavern in Sunnyvale, California—pulled in \$40 a night and launched the Atari empire. While this prototype is not for sale, the other machines shown on these two pages are. For details, write to: Atari, Inc., 14600 Winchester Blvd., Los Gatos, California 95030.



PONG

(\$1100-\$1200)

The current version of Pong has a built-in self-defense system. The top is slanted so that players can't deposit their beer mugs (or their beer) on vital parts during the heat of play. And the paddles now disappear from the screen between games. (Bar owners had complained that empty-pocketed Pong addicts would sit in front of the sets for hours, fondling the knobs, getting off on pure response.) Ah, progress.



SUPERPONG

(\$1100-\$1300)

Three paddles on each side allow lightning-quick returns, deceptive feints, and trick shots. SuperPong players seldom drink. Before an important match, they can be seen performing the hustler's handjob—sanding calluses off their finger tips. Banzai!



PONG DOUBLES

(\$1100-\$1300)

This game is a useful guide to sexual compatibility. Eye-hand coordination is where it's at, and for a quarter you can find out if your partner is a klutz. Can she get her paddle in front of a fast-moving blip? If not, can you imagine what she would be like in bed? Don't let yourself be distracted by the way her breast rubs against your arm, or you may lose valuable points.



QUADRAPONG

(\$1200-\$1400)

This video version of field hockey takes social Darwinism one step further. Make too many mistakes and you are eliminated from the game. Losers have been known to wander over to the electronic shooting gallery, place mock rifles against the roofs of their mouths, and commit symbolic suicide. If the winner is a bore, the three other players can gang up on him. It's called conspiracy.

Atari could hold the Sixth Fleet. Our national folk myth is the success story, and Atari's is a whopper.

Pong is an amusement wherein two persons pay a quarter to bat a blip of light back and forth across a TV screen with vertically mobile "paddles." It's as brilliant a commercial stroke as cellophane, and Atari was built on Pong money. Then came Space Race, wherein two blip spaceships race through a horizontal flow of blip meteors. Pong Doubles is just what you would expect, Gotcha features a dot chasing an X through an ever-changing maze, QuadraPong is like

video hockey with four goals, Rebound is video volleyball. Gran Trak is a video simulation-driving game, and I can't even get near things like Dodgem, Frenzy, or World Cup Football, the electronic soccer-style game that's setting marketing records all over Europe. Atari likes to shove a new game out the door every six weeks.

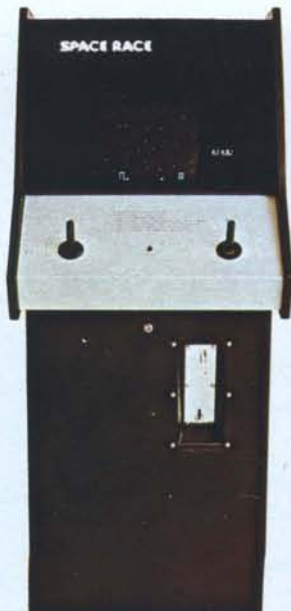
Atari is scarcely two years old. It's worth upwards of \$20,000,000, has a growth curve like the flight path of a SAM missile, and is shot through with problems. The hassles trace to the inevitable problems of growth, and to the Achilles' heel of all in-

dustry—labor in the form of human beings. Atari began as two electronics nuts, Nolan Bushnell and a man we'll call Moose, and a dozen unskilled freaks cranking ten Pongs out the door each day, working side by side at shit wages and appalling hours. Now the two nuts keep company with bankers and patent attorneys, the freaks crank out slightly more machines at slightly better pay, and a whole lot of persons with coats and ties are running the show.

I hang around the advanced research and development room, its door covered by a Personality Poster of Paul Newman and Robert Redford in the mad

fatal dash shot from *Butch Cassidy*. Below it is a sign: RESTRICTED AREA KEEP OUT. Restricted? Security? But they make games, ha ha. Yeah, games that sell in swarms at \$1000 each, if you're first on the market with them. Go through this door and they will acquaint you with the D.A. When it comes to secrecy, these lovely people have assholes you couldn't draw piano wire through.

Sharon, Nolan's personal secretary now, was head of security before it became SECURITY. "Nolan wasn't very practical," she says. "He tried to run the company on love and trust." Coming off the national love



REBOUND

(\$1100-\$1300)
Inventor Nolan Bushnell says Rebound is great to play when snookered. It's something like volleyball. The blip can be hit up to three times on each return. Devise offensive strategies, utter disparaging remarks to throw off the opposition. Try to sing along to the bouncing blip. Play it again, Sam.

SPACE RACE

(\$1100-\$1300)
Some people find the joy-stick control on Space Race more to their liking than the knob thrill of Pong. The joy stick seems—how do you say?—familiar. Players try to maneuver a blip ship through a belt of asteroids. One tip: The faster you go, the less chance there is of collision. Beat your record or the person playing against you.

GOTCHA

(\$1100-\$1300)
Fans of *The Fugitive* or *Butch Cassidy* and the *Sundance Kid* go crazy over Gotcha. One blip caroms off the walls of a constantly changing maze as it tries to avoid capture. Drunks have discovered that Gotcha simulates freeway driving conditions.

GRANTRAK 10

(\$2000-\$2400)
Bushnell call this the real game, and he may be right. The blip behaves like a car. Press the accelerator and a synthesizer emits a roar that will shame your Datsun. Shift into first. Second. Third. Drift into the corners and listen as a tire squeal becomes a crumpled-fender explosion. Practice, find the line—and fly.

?????????????
(\$????)

What is this? An Ultraban 500 can with a coin box? An oversized personal vibrator? Atari's version of a crystal ball? Your guess is as good as ours. We saw it in a secret prototype room at the Los Gatos factory and snapped this picture when no one was looking. If nothing else, it is the shape of things to come. Keep your eyes open.

A FISTFUL OF QUARTERS A tide of money comes in.

July worldwide, going into holography and XY displays, 3-D images, total involvement, transcending simple computer circuitry into real Hewlett-Packard action. Serve the ball, Hal. Hefner couldn't stop with magazines, Disney was unslaked by film. N.B., too, has his visions.

Who knows? Beyond the proposed profit sharing, tuition loans, advancement training, etc., Nolan says, "I'd like to see the company grow into divisions to work on special projects. We have a couple now, producing games under different names. I'd like to set up the original crew to run on their own, doing short-run organization, testing new products and methods." What you might see, if N.B. has his way, are Atari autonomies in several different locations, using a variety of approaches to production and business, letting the method shift to fit the job. I automatically give points to anybody trying to change the nature of American industry.

Nolan, the empire builder with the child's attention span, self-consciously gathers up some cigars and must split for Nashville and cash-flow problems.

You go away with the image of a growing host of good-natured hippie slobbers loosely organized around the engine of several future-shock management liberals, the whole ungainly apparatus held together by the cotter pin of N.B. And the money comes in like the tide. Egypt and Lebanon are two of the best game markets on earth, but Atari's director of international marketing is Jewish. He's got orders on his desk like Christmas cards, but screw the Arabs. That is absolute success.

N.B. and his trinket are clearly in solid. It is true that businesses run people, but now and then some of them pay handsomely enough for it. I am not a fan of human beings as servomechanisms; neither do I spin. Maybe it's as close to utopia as industry can come; but it's still persons working nine-to-five at the pleasure of unseen men, some of whom rake in thousands to their every hundred. And perhaps it was the same system that thrust N.B. into the right place at the right time that kept them from it. You can get sociological as hell in a situation like this.

Still, if there is anyone alive who is directly responsible for his own prosperity, it would seem to be N.B. If his were ingenuities that anyone might have had, why is it that nobody else did? If you wanted to come up with a short summary statement about Atari and Nolan Bushnell, you could do well with the instructions printed on the pleasant, voracious face of the Pong machine: AVOID MISSING BALL FOR HIGH SCORE. ■

FOR A FEW QUARTERS MORE



The Secrets of Pong

The noise of the crowd at the bar diminishes as you concentrate on the Pong screen. Or have they become quiet, aware at last that you are locked into an epic struggle with the stranger who leans one arm so casually against the top of the machine? Your life, ego, and spare change are at stake! Suddenly you realize you've been hustled. The guy had seemed drunk when he asked you to play for a quarter a point. There is little doubt of his sobriety now, and his cruel enjoyment of an incredible string of breaks. The glass of beer obviously was a prop; if you'd been alert you might have noticed that the head had settled long ago. The pressure builds and your concentration ties itself in knots. Your finger twitches and the paddle jumps erratically. The blip moves across the screen like a prison spotlight. Demonicly, it seems to speed up with every volley. A bead of sweat slides into your eye. You blink and the blip is past you. Point. Game. Match. Cleaned out. Maybe it wasn't your night. He was good, but not that good. There was nothing you could do against those shots that kept finding the corner of the screen, just out of reach of your paddle. Right? Wrong.

Albert Einstein once said that God does not play dice. (He doesn't like to get His knees dirty.) Actually, AI was making an obscure point about the role of probability in quantum physics—i.e., that chance is the name we give to a process that is too complicated to understand. The more you know about something, the less you leave to chance. God does play Pong, and He usually wins. Not because He is omniscient or omnipotent, although that certainly helps, but because He understands the process that is Pong. Pong is a miniature computer attached to a television screen.

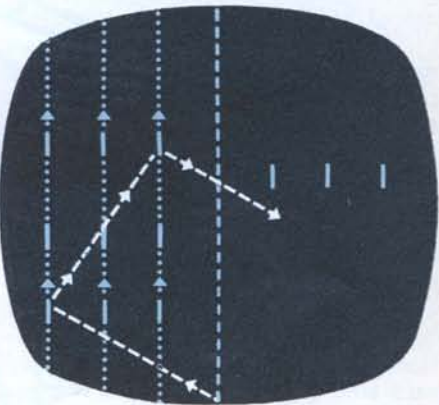
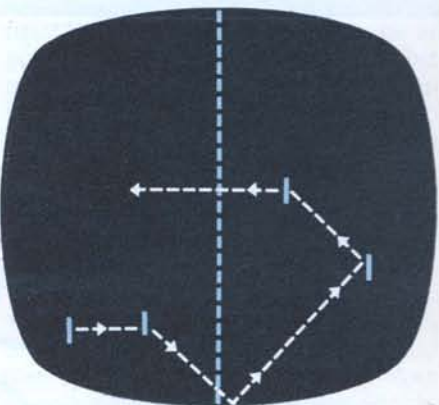
The behavior of the blip and paddles is the result of several algorithms built into the circuitry of the computer. (An algorithm is defined as a rule of procedure for solving a recurrent mathematical problem.) If x happens, y will happen. Pong cannot be influenced by good-luck charms, body English, or the intake of esoteric South American drugs. Master the algorithms and you, too, can hustle Pong. (Hustling is defined as a rule of procedure for solving a recurrent financial problem.) Read on.

The Paddle: A Pong paddle appears to be a single unbroken surface. Many players believe that it acts like a tennis racket, i.e., it



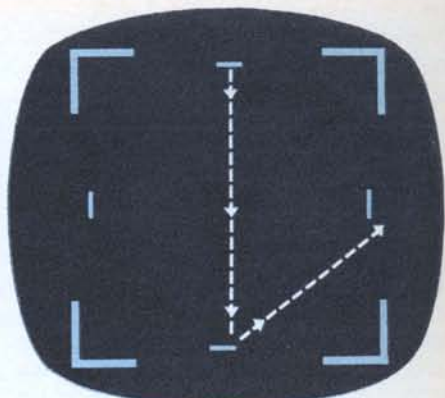
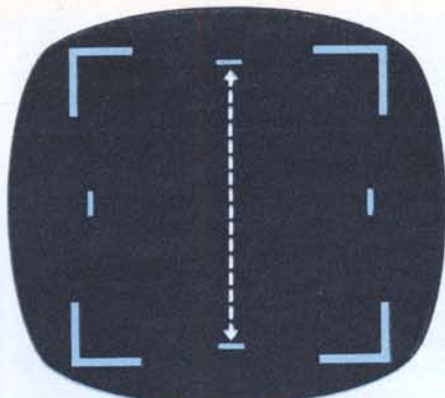
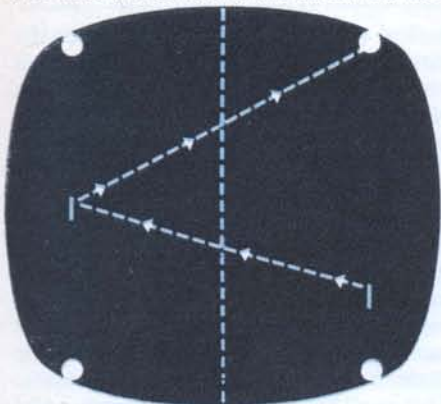
can impart spin to the blip if moved quickly. Actually, the paddle is composed of seven sections (above left). Each section returns the blip at a predetermined angle, no matter what the angle of incidence. The middle section, for example, returns the blip horizontally, while the end sections return the blip at more acute angles. The front paddles on Pong Doubles and SuperPong are transparent. If a blip that bounces off the back paddle passes through a section of the front paddle, it will change direction accordingly (above right).

A player gifted with a modicum of eye-hand coordination can use the paddle algo-



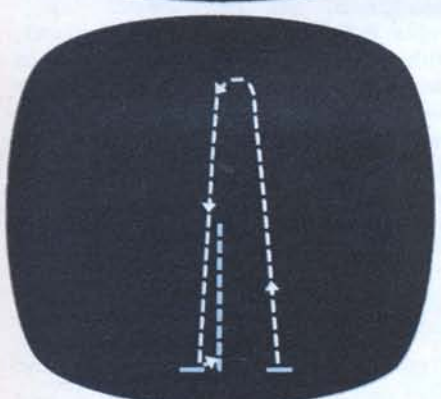
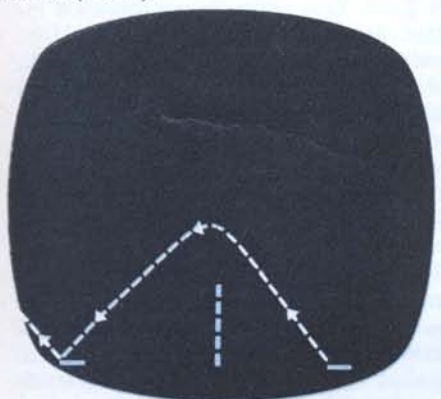
rithms to redirect the blip at odd angles, thus confusing his opponent, or at least tiring out his fingertips. On Pong Doubles (top) a back-court player can pass to the person playing net, who has the option of moving aside or intersecting the blip. On SuperPong (bottom) a player can reverse

the direction of the blip several times, or he can keep his opponent guessing. Fake out!
Hostile Zones and the Automatic Ace: A shot hit to the corners of the screen cannot

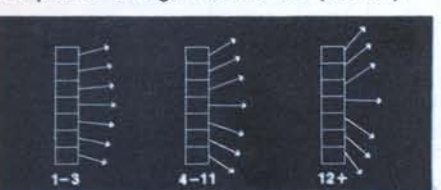


Pong you and your partner can double-team an opponent by setting up a safe or closed volley (left). Keep count, and on the fourth or twelfth volley speed up and move your paddle slightly to send the blip past a startled opponent (right). Zap! Once you've eliminated the other players, you will have to confront your partner. Show no mercy.

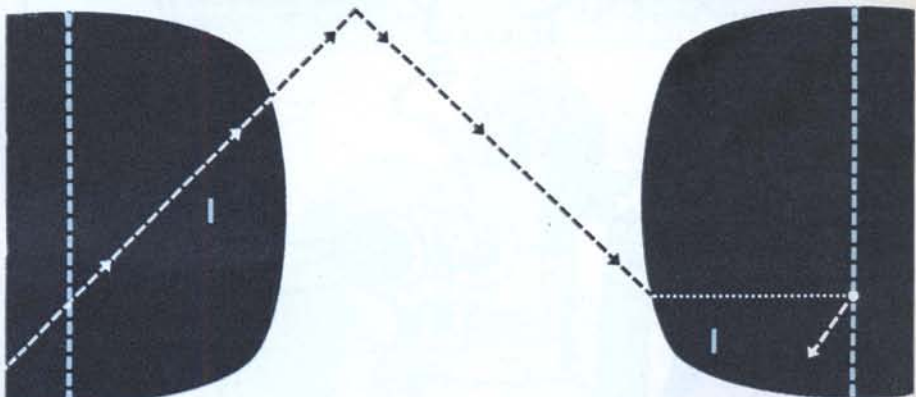
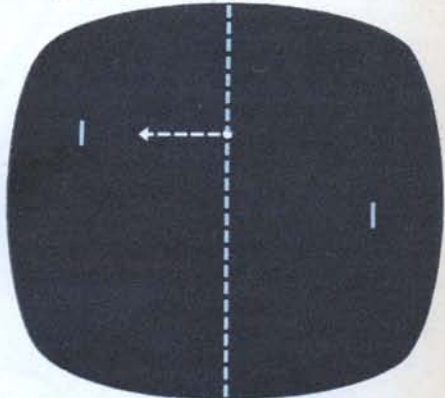
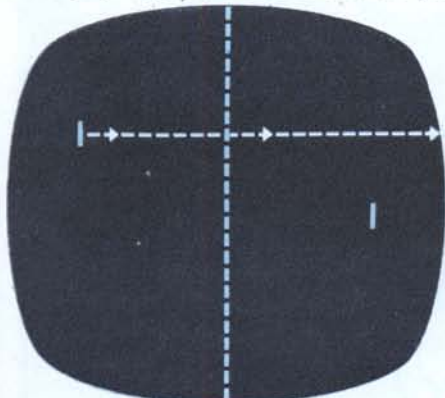
be returned. The automatic ace is accomplished from certain areas of the screen called hostile zones. Know the hostile zones on your side of the court and use them; avoid putting the blip into hostile zones on your opponent's side of the screen (above).



The Spike: In Rebound a deep shot will hit the back of the paddle and keep going (top). A forecourt shot will hit the front of the paddle and go into the net (bottom).



The Volley: It's not paranoia or pressure, the blip *does* speed up on the fourth and twelfth volleys. The increase in speed is accompanied by an increase in the angles of return on the paddle (above). In Quadra-



Predicting the Serve: You have just scored a point. Before you can count to three, you have to deal with the return serve. *Hubris* can be fatal. The motion of the blip is the result of two vectors—horizontal and vertical. The horizontal speed of the blip is the same for each serve and does not change until the fourth and twelfth volleys (above). The vertical speed of the serve is determined by the vertical speed of the blip on the last point. If you manage to score on a horizontal shot (zero vertical velocity), the serve will come from the height at which the blip left the screen (top). If the blip leaves the screen at a steep angle (a high vertical velocity), imagine its path to be contained by the top and bottom of the screen. Count off the time between the point and the serve and you should be able to predict the angle of and the place at which the serve will appear (bottom).

Author's Disclaimer: Why would our divulge the secrets of Pong when we could put them to our own use? A good question, and one we asked ourselves when the article was first suggested. We were frolicking in the underground pool at our publisher's house with several naked ladies, when our managing editor walked by on his way to the game room. Ignoring the obvious, he asked, "Any of you guys wanna play Pong?" We decided that if we were ever to get any piece we would have to make Pong a source of humiliation and defeat for our chief. So we

sent one of our number to the Atari plant to research the secrets of the game. Using these tricky hustler's gambits, our dexterous informant can win with either hand, blindfolded, or while talking to a chick. We don't expect you to believe this story, so we'll let you in on a secret of the magazine world. Each issue of OUI is put together at least three months before it hits the newsstands. By the time you read this article, we will have financed our Ferrari Dinos, and we will have enough quarters left for a lifetime of tolls.

—JAMES R. PETERSEN