

Into the Darkness of Fire

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{Philadelphia Inquirer, Sunday Magazine cover story, May 11, 1986}

I hear the bells. I see the alarm lights. Every nerve jumps. Everyone is moving, running to the doors and to the engine. We drive out of the lighted garage bay into the cool night. I have taken my seat in the open, rear-facing crew cab, and I watch West Philadelphia recede behind Engine 65.

Although a seat is directly in front of me, no one occupies it to block my view of the hoseline lying neatly in repeated folds across the mid-section of the fire engine. One man sits to my left. Our driver and our officer sit in the main cab. We two rearward-facing firefighters have taken over the places and the work that once belonged to four. We talk little as we go.

I look down the left side of the engine, past the empty seat in front of me, to the lighted pump panel with its gleaming, glass-encased gauges and chrome-plated valve handles. Already, the 1 3/4-inch attack hoseline is connected to the engine's 500-gallon water tank; we know we'll have two or three minutes of water from the tank. After that, the pump must get water from a hydrant. In the night, the pump panel is an island of brightness that proclaims its importance. It seems to say: "I'll decide if you have water in your line; I'll decide your future." Because I trust the water pump operator, our driver, I don't worry about the water.

As we move into Fairmount Park, the road smooths out and the trees along the curb whoosh at us like incoming waves. The bulk of our engine pushes through the moist night air. We move so evenly and, excepting the steady drone of the motor, so quietly (no need for sirens here) that I feel as if we are on a ship, a ghostly ship with its skeleton crew, on the way to war.

That is the way one can think responding to an alarm in the late night or early morning when his consciousness is a bit out of the ordinary, moved off-center by tiredness and the strangeness of the hour. Not only the time of day is strange, though; it is the job itself, rushing in the quiet hours to someone's personal disaster, going from sleep to full arousal in an instant. Strange job that it is, it's not surprising that most people do not know exactly what we do.

The experience of attacking a fire is necessarily difficult to comprehend for anyone who hasn't done it. Firefighting has no proper analogy in ordinary life, and the guts of the work, interior firefighting, cannot be seen by a spectator or be recorded on film. Often it

cannot be seen even by those doing it, because the work is done in darkness and smoke - it is more felt than seen.

In most cases, a building will be lost or saved, the safety of endangered occupants determined, and the most lethal risks to firefighters taken in the interior darkness. There, firefighters using air tanks called “Paks” search for the seat of the fire to extinguish it rapidly and prevent it from spreading farther. There we are lost in a claustrophobic blanket of smoke that is worse than the fire’s heat. For at least heat provides a sense of direction; the fire is in front of us, retreat is behind us where it is cooler. But dense smoke is disorienting. We become unsure of which way safety lies. We may as easily stumble into a hole or shaft as back out to the street.

This time the siren doesn’t stop whining, the beacons continue flashing, red to black to red again, until the peculiar, familiar scent of a burning building strikes us: We have a “working” fire. And with the realization comes the palpable, sometimes painful sensation of a heart thumping beyond its own blood supply. Coats are buckled, hoods pulled up. The Pak man checks, straps on and adjusts his breathing gear.

All is a rush when we drive up and haul our preconnected hoseline into the front hallway of the smoking rowhouse. Each man feels his own personal measure of fear, but none dwells on it; there isn’t time. There is only motion and wariness. We lie on the floor waiting for water to fill the line. Somewhere ahead of us the fire and heat are growing. Small patches of superheated, combustible gases light up over our heads and then fade out. They get closer and larger the longer we wait.

Finally, water! We start moving. The lieutenant, close on our backs, urges caution; while we work, he worries. The important action passes quickly. If we don’t find the fire soon and stop it, we know conditions will become less predictable, more dangerous. We are fighting time here as well as fire. Heat that feels as if it’s burning our exposed necks and ears is accepted and ignored as we push into the smoke. We pull and yank at our hoseline as it snags in a doorway or turn. Our Paks seem unable to provide air as fast as we use it, and our lungs become tired from sucking air through the regulators. Crawling in the blackness of an unseen room with the air tanks harnessed to our backs, we feel as if we are on the bottom of an inky sea and at any moment we may be drowned by forces over which we have no control.

Then we see flame. We open the nozzle to its straight-stream position and angle the flow toward the ceiling. From there it deflects down on the fire, hitting behind objects that might block a direct stream. The water disperses the 800-plus-degrees Fahrenheit air by the ceiling, making the atmosphere at floor level less bearable. Our lieutenant, who is not wearing a Pak, has had to retreat. We two firefighters keep moving over the smoldering rubble of one room toward a room in the rear that, through the smoke and the worn

lenses of our face masks, appears as a dull orange glow. We crouch a few feet from the doorway to this last room and again point the line at the ceiling. The muscles in our backs and shoulders begin to cramp from struggling with the unwieldy hoseline and the nozzle reaction. But we know the fire is almost out; we only have to hang on a little longer.

Contradicting what we think, we feel the heat increase around us. Then we hear someone calling from the front. We turn together and see flame coming up from a section of floor in the room we just came from. The yelling gets louder, "Back out! The basement's on fire. Back out!" We give the burning floor a last shot before closing off the nozzle and following our line back to the front entrance. In the doorway, we pull the hoseline out from the interior and reopen the tip to flood the first floor. Our lieutenant tells us that another engine company is in the basement fighting the fire with a line they took in from the rear of the dwelling. We begin to worry that they won't put out the fire before the first-floor joists collapse.

Although it may appear to be the whole business of fighting fires, directing water is only half the job in the usual residential or commercial building fire. The interior hose work of engine companies could not get done without the varied and complementary work of ladder companies.

It is a ladder company, or "truck," that makes forcible entry into locked, barred, or boarded-up buildings. Its members ventilate the sooty smoke that keeps hosemen from finding a fire by breaking windows above the level of the fire and by cutting open the roof. The ventilation also frees the enclosed heat and combustible gases that accumulate along ceilings and in the upper areas of any structure on fire. Left inside undisturbed, those heated gases are likely to ignite (called a flashover) or to explode (called a backdraft explosion).

On January 28, 1985, it was a flashover in a Reading, Pennsylvania, residential YMCA that killed three civilians and firefighter Donald G. Jacobs, 26, son of retired Philadelphia Fire Department Lieutenant Donald Jacobs. Firefighter Jacobs had entered the building to evacuate occupants not yet out. He was leading one he had found back to the main lobby when, having gotten as far as a door to the lobby at the bottom of a stairwell, everything around them ignited. Both men burned to death at that spot.

Laddermen are the firefighters who must guard themselves from raining glass as they break windows above their heads. And after removing a window from an often precarious perch, they are in danger of being engulfed in the smoke or flames that may belch out from the inhospitable interior of the building. It is they who raise and lower a variety of metal ladders into night skies while trying to avoid contacting overhead electrical wires, a hazard that killed John Brightcliffe, 21, of Ladder 3, on February 7, 1978. That night

Brightcliffe and two other firefighters (who were not seriously injured) were lowering a 35-foot ladder at 528 W. York St. when the ladder came too close to a 13,200-volt power line. Brightcliffe's body caught most of the current flow; he was pronounced dead at Episcopal Hospital.

With their assortment of portable ladders and their large hydraulic "main" ladders, trucks have the assignment of rescuing occupants endangered on ledges, landings and floors above the fire. It is tricky work. Occasionally a person being approached will idiotically jump down the ladder when the climbing firefighter is only halfway up. Sometimes, weakened window sills or landings dissolve, unbalancing the ladder and throwing the rescuer to the ground. Sometimes a ladderman searching inside for occupants is trapped in a rising swell of combustible gases, or by fire that extends to the area he is in. This happened to David Price of Ladder 8, on January 13, 1981, when his ladder company was first to arrive at a dwelling fire in the 5200 block of Pulaski Avenue.

Hearing that a child was trapped inside, Price entered the house wearing a Pak but without the protection of an engine's hoseline. Unable to find anyone (there was no one inside; the report was false), Price was leaving the house when flashover occurred. He dropped to the floor to escape the worst of the heat, but even on the floor the radiant and convected heat charred the visor of his face mask. Unable to see, and burning in the severe heat, Price became disoriented and could not find his way out. His helmet began to melt and disintegrate around his head. Fortunately, he remained conscious and was able to yell for help. When two firefighters located him on the first floor, he was badly burned but alive. He suffered mostly third-degree burns to 20 percent of his body. After more than a year and a half of treatment and therapy, Dave Price returned to duty. Today he is back working at Ladder 8.

After they finish their critical initial work and the majority of fire is extinguished, laddermen begin cutting open walls and ceilings in order to expose concealed patches of fire. Then they carry out the burnt remains of the rooms destroyed by the fire. Both chores are strenuous, and done in air thick with soot, steam and carbon monoxide. During these "overhaul" operations, laddermen do not usually wear breathing gear because the Paks are too heavy and restricting for the work. Consequently, they are rapidly fatigued by the combination of poor air and rough labor. As is true of much of the work on a fireground, most of the overhauling effort gets done by sheer determination and stubbornness.

Bystanders watching a residence burn have wondered, at times loudly and angrily, why the first engine to arrive will ignore the cries of victims at upper-story windows and will instead pull off its hoseline and disappear into the dwelling. What those spectators do not realize is that an aggressive interior attack on the fire offers the greatest chance for rescue to the majority of occupants. For if people are visible at windows, there is a fair chance

that others are trapped inside in more serious difficulty. Those unseen victims are primarily the responsibility of enginemen, while laddermen have the responsibility for removing those visibly threatened.

This division of work is more pronounced at present, when all one engine usually can accomplish is placing a single hoseline into service. In Philadelphia, as in other large American cities, financial constraints have reduced the number of firefighters. Engine companies have seen their crews cut from an officer and five men in 1974 to an officer and three (occasionally four) firefighters in 1985. Ladder companies that had an officer and five or six men in 1974 now operate with an officer and four. Since the late 1970s, there are rarely enough firefighters riding an engine to use the 24-foot ladder, now superfluous, that each still carries on its right side.

While decreased fire department staffing has had some effect on what Philadelphia's firefighters can do and their tactics for doing it, much more serious problems have developed over the past 20 years. The nature of things that burn and the structures involved have changed.

In 1965, 2 percent of all building materials was plastic. By 1981, the figure had grown to 10 percent. The composition of household appliances, furnishings and knick-knacks has changed, too. Parts or entire items once made of cloth, wood or metal have gradually been replaced by synthetic polymers such as vinyl's, polyurethane foams and polystyrene. In today's home, a wide assortment of cleaners, polishing agents, bug killers, fuels, oils, paints and solvents also can be found. Those substances are potentially harmful at normal room temperatures. In a fire, they degrade, recombine and metamorphize into molecular monsters. A look at the many containers stored under a typical kitchen sink suggests the gravity of the problem.

The contents and interiors of most contemporary buildings create smokier, hotter, more lethal and more carcinogenic fires. As reported in "The Modern Fire" (The Inquirer, July 8, 1984), the 10 victims of the February, 1984, Kensington rowhouse fire and the eight victims of the Haunted Castle fire at Great Adventure were all overcome by fumes from fires originating in polyurethane material. At the 1980, MGM Grand Hotel fire in Las Vegas, 67 people died on the 20th to 25th floors by breathing combustion products circulated by the hotel's ventilation system. The actual fire was confined to the first floor.

Those deaths highlight the nature of the gasses firefighters face regularly. So does the rising tide of firefighter deaths from cancer. A 30-year review of death certificates for West Coast firefighters shows that from 1950 to 1980, deaths attributable to cancer increased from 17 to 34 percent, while the rate remained below 20 percent for the general population. Professional firefighters also were dying of cancer at a younger age in 1980 than they were in 1950.

Along with changes in the contents of buildings, structures themselves are changing with slight forethought to fire safety. Perhaps the most common new peril to occupants and firefighters is the potential for collapse inherent in wooden truss construction. The cost-efficient, weight-saving truss is a series of small wood struts that together create a supporting beam of significant strength. However, when any one piece of the truss gives out (and the small pieces can fail quickly in a fire), the whole truss tends to give way. Compounding the problem, trusses usually are put together with gusset plates, small squares of sheet metal punctured to form many ¼ inch triangular points. The gussets are pressed into the surfaces of adjoining struts, which results in a surface connection instead of the deeper connection made by traditional nails. Exposed to fire, the gusset plates so quickly heat up and burn themselves out of the wood that a roof or floor often will collapse before a fire department arrives.

The variety of fire-related problems in Philadelphia is similar to that in any major U.S. city. However, firefighters who work in the nation's older, more-deteriorated cities do encounter the additional dangers of decrepit, structurally altered buildings that have been subject to the synergistic effects of settling, street vibrations, weathering and weighty floor loads. In the poorer neighborhoods of Philadelphia, weary dwellings collapse for no apparent reason on an almost regular basis. When Joseph Konrad, 37, of Engine 25, died on June 13, 1984, in the collapse of a Philadelphia rowhouse, he was another firefighter victimized by an old dwelling already damaged by unsound renovations and a previous fire. Because the buildings most vulnerable to fire are typically the least safe for firefighters to enter, a similar end unquestionably awaits another Philadelphia firefighter.

So, why would anyone want to take up this job? Where does the city find people crazy enough to do work that injures from 40 to 50 percent of them each year; work that has killed two firefighters each year here, on average, since the beginning of a paid Department? Are firefighters former mental patients now released from their leather restraints? Are they convicts free on perpetual parole to the Fire Department? Not exactly.

To start with, no one knows what it is like to confront fire until they have. Few recruits understand exactly what they are getting into when they join the Department. Paradoxically, after learning what their new job is about, the majority of firefighters relish it.

When I fought my first difficult dwelling fire, working as the man on the nozzle, my ears were burning, I was unable to see, the heat was growing, and I did not know exactly where I was or what I was moving into. As I got encouragement to push forward from the veteran behind me, I wondered that anyone would do this insane job more than once. I knew I wasn't going to any more fires. I remained at this one only because others were there, too; hanging in was a matter of saving face. Afterward I could tell friends I was

offered a better job (yeah, I was thinking, one that doesn't threaten your life!). But when the fire was out, and I discovered I had survived the ordeal, I felt differently. In the wake of my fear there grew a compensatory measure of pride and elation. I actually felt bigger than my physical proportions in a way unimaginable to the uninitiated. I had learned that a firefighter not only conquers the fire; he conquers part of himself as well. He redefines his abilities.

Certainly firefighters do not start out as special people. They are not born braver or stronger or nobler or more demented than others. They are, however, made unique by virtue of being ordinary men placed in extraordinary circumstances. The work itself fosters a strength of character enabling a person to surpass his expected limitations, and at times to enlarge himself to heroic proportions.

That happened to Thomas Rush of Engine 68 on March 14, 1982, when he ran down a burning second-floor hallway on Edgewood near Race Street to search a front bedroom for a 2-year-old child. Finding the boy in one frantic dash, and protecting him with his arms, Rush dove head-first out of the untenable heat through a front window. The two, both burned, landed on the first-floor porch roof. The child was in critical condition for days at St. Christopher's Hospital for Children with severe smoke inhalation; he is alive today. Rush received second and third-degree burns to his hands and ear. He returned to work in a few weeks.

Even with protective breathing equipment, running through fire is not a thing firefighters routinely do. Usually it is not practical, and heat such as Rush met is likely to drive the thought from a firefighter's mind. But Tom Rush will shyly argue that any firefighter would have done what he did on Edgewood Street. There Rush had enlarged himself to the greatest extent possible. He became big enough to act as the hand of fate.

Another reason firefighters like their occupation and stay with it despite hazards that become more obvious with experience is that they learn to value the achievements and sacrifices of their co-workers in an exceptional way. For only a firefighter can fully appreciate what other firefighters endure. It is a communal awareness that brings them into a relation transcending personal differences and tastes.

Then, too, firefighters are heavily dependent on one another. Every fire is a multi-job, team action, with crews who regularly work together meeting the neighboring companies with whom serious fires are shared. Bound together by constant association, mutual dependence and the threat of injury and death, firefighters develop a deep fraternal admiration and respect. The man next to you today might not be there tomorrow, or he might be the one you'll need to save your life. All of that makes for an intense cohesion difficult to match in peacetime.

Finally, some find it intrinsically rewarding in the relative safety of American life to test their mettle against a formidable foe. It is a challenge unlike the artificial danger planned into “survival” courses, unlike the sham high adventure of a weekend hunting trip on a game reserve, and unlike the egocentric kick of sky-diving. Firefighting is purposeful and necessary risk, risk without a margin for rescue. Firefighters are the rescue. The work is beautifully unequivocal.

It must also be said that the work can be an unequaled nightmare. The Gulf Refinery fire of August 1975: John Andrews, Carrol Brenek, Ralph Campana, Robert Fisher, Hugh McIntyre, Roger Parker Jr., James Pouliot and Joseph Wiley - eight Philadelphia firefighters who burned to death when the water and fuel mixture in which they stood ignited. Their deaths are a haunting reminder of tragic loss, and of the capricious disaster that lurks around our work.

Firefighter reaction to a six-alarm fire at the Arco Refinery on June 29, 1983, as told by one there, reflects that memory: “There wasn’t much talk. Guys were walking around with their heads up but their minds down, so to speak. They were just doing what they had to do. After it was under control, you saw guys start to lighten up a little, and laugh and smile. But they wouldn’t talk about it like a regular building fire. Guys would talk about the ball game, or how’s the family, or how ya been, but not about the fire. It was the first time I ever saw firefighters on the fireground not talk about the job. They had to be there and they didn’t want to be reminded of their feelings, of the [possible] consequences: ‘We made it through this one, now let’s get the hell out of here’ was the attitude.”

So, too, do civilian deaths present a grim reminder of human vulnerability and of the cruel ease with which personal tragedy arrives. Approximately 90 Philadelphians die each year from fires that could be escaped but for the lack of a \$10 smoke detector. Most of those victims die in fumes and smoke before the Fire Department arrives. Their deaths are sorrowful lessons in the limitations of fire prevention and suppression. The loss of children whose lives firefighters could not save is a loss unspeakably hard for them to accept.

As we turn the corner from Arch onto Peach Street, we see, three-quarters of the way down the block, flames blowing in a mad orange swirl out the front windows of a rowhouse. We hear people in the street screaming at us, “There’s children in there! Please! Get the children!” Our Pak man runs down the street, strapping on his air tank as he goes, while the remainder of the company is connecting the engine to a hydrant and laying hoseline to the fire. The first arriving engine company is knocking down the fire on the front porch and in the entranceway with their preconnected line. Their tip man, who is not wearing a Pak, passes the nozzle to our man, who begins to move into the fully involved first floor. Behind him, the firefighter on the porch pushes in the waterline. The

Pak man knows he must get to the second floor as fast as possible. He also knows that before the engines turned the corner, the interior of this house had reached flashover. He dimly understands, though he hasn't yet admitted it to himself, that the alarm almost certainly came too late to save anyone left inside.

One minute to slake the bulk of the heat and flames in the living and dining rooms, and our man is working his way up the stairs. He extinguishes the flames on the second floor as he moves up. Once on the upstairs landing, the worst of the fire quickly out, he crawls into a rear room. It's empty. Scurrying over char and embers, he pushes through a partly open door into a middle bedroom. In the darkness he fumbles against a bed. He feels across it and finds two small bodies. He picks up one, then the other. They are both the same, too light, too rigid — the arms and heads not dropping down when the torsos are lifted. He sees contented, puckered, doll-like expressions on the mouths his flashlight barely illuminates. He puts the second form back down on the bed. Confused, exhausted, his ringing alarm bell telling him he's nearly out of air, he leaves the room as other firefighters are coming up the stairs. As he goes, he tells them in his shock that two dolls are in the middle room, they shouldn't be mistaken for children.

They were children, though, not dolls. They had been quietly killed in their peaceful sleep, and their mouths and bodies stiffened by the heat. They had felt weightless in arms numb from hauling hoseline.

Yet, in a deeper sense, though the bodies were still there, our firefighter was not wrong. The children he was searching for were gone. They had left before he entered the house, before water hit the fire. They had already disappeared into a poisonous heat and the unending record of human error.