

“An Odyssey from High-Energy
Physics to Occupational Health and
Safety, with Inspiration from SftP”

Dave Kotelchuck

This is not my story alone.

It is representative of many of us in the 1960s and 1970s who trained in various areas of science and then redirected our professional efforts into the field of occupational safety and health.

Many of us are at this conference.

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I first experienced the excitement of high-energy physics at Cornell University. My teachers were Philip Morrison, Hans Bethe, R.R. Wilson and others – Great physicists, activists against the misuses of atomic energy and founders of the “Bulletin of the Atomic Scientists.”

Vanderbilt 1962-67

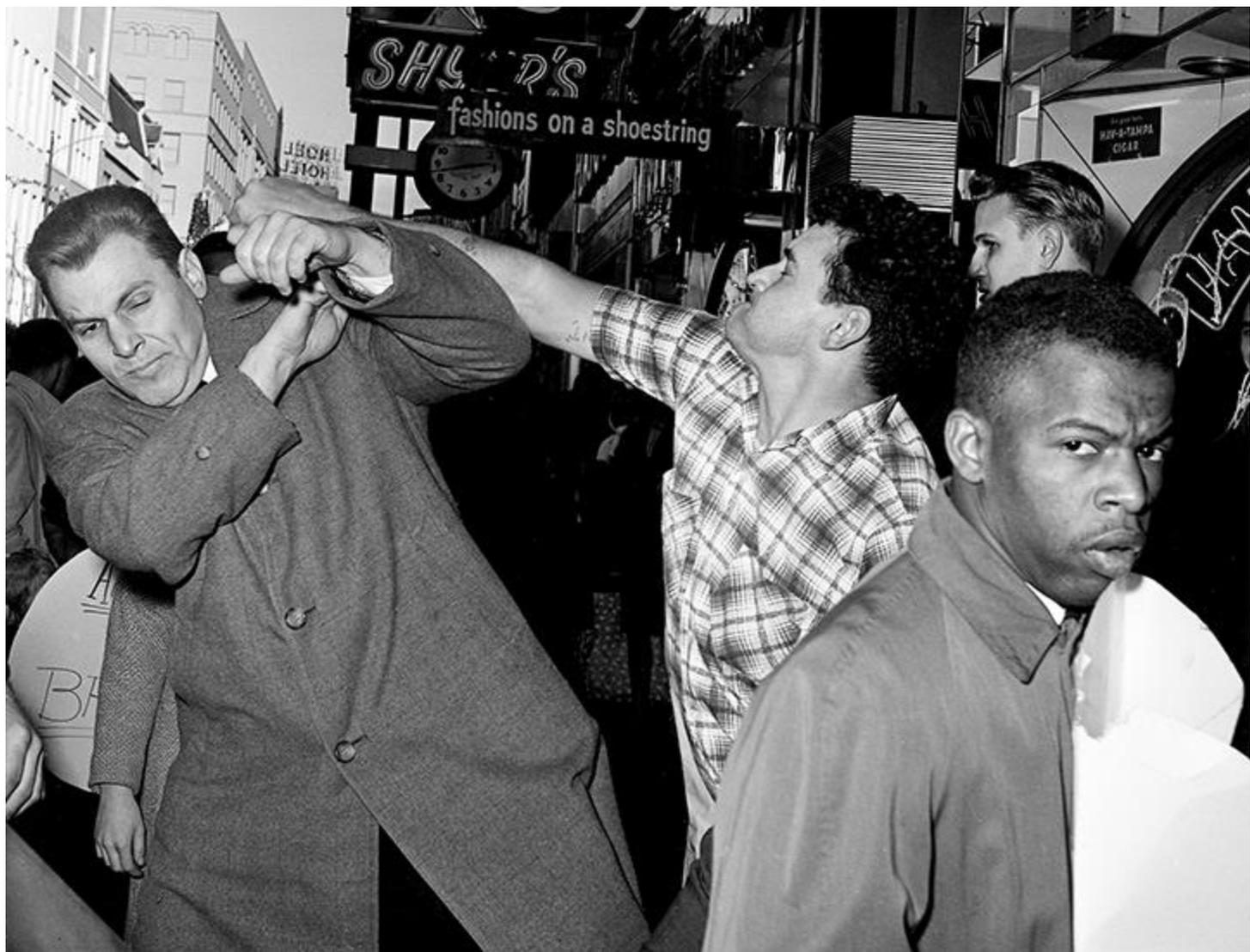
Science Research on the Σ^+ particle

-- Lifetime 10^{-12} seconds. I help

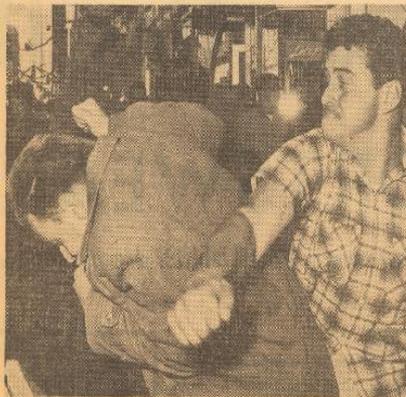
measure its magnetic moment.

Great fun but unlikely to be of
practical value to the larger society

MEANWHILE the civil rights
movement is roaring in Nashville, led
by John Lewis and SNCC .



Professor Ducks Swing



—Staff photo by Bill Prosser
Dr. David Kotelchuck, left, assistant professor of physics at Vanderbilt University, member of a sit-in group, ducks as Gene Taylor, restaurant employe, swings at him during a demonstration in front of Herschel's Tix Toe restaurant on Church Street. Policemen arrived a few minutes later and things simmered down.

Sit-in Hecklers Arrested Here

Four white hecklers were arrested yesterday as they entered and joined a band of 32 sit-inners, mostly Negroes, marching from the downtown district after a two-year demonstration.

The four, including two juveniles, were arrested at the main line of marchers outside The First Baptist Church, 219 Eighth Ave. N., which serves as the center point for sit-in efforts.

Charged with disorderly conduct and released on \$5 cash bonds each are Barry Robert Cloward, 24, of 116 Alford Rd. and David Wayne West, 18, of 1835 Marwood Lane. Names of the juveniles were not released.

A HEARING for Cloward and West was set for 10 a.m. Wednesday.

"The ones arrested were part of a crowd of perhaps 50 or 60 who began following us from Capitol Boulevard and Union Street," said John Lewis, 23, a Vanderbilt University student, chairman of the local Non-Violent Committee.

Policemen told the crowd to break up.

The policemen, who were operating yesterday under the direction of Sgt. R. P. Underwood, moved in and made the first arrests when the group refused to obey orders to move on.

Lewis said the mob had been shouting "Go, niggers, 'niggers" and called us names."

LEWIS SAID there were five women and eight men in the sit-in demonstration.

Students from Vanderbilt, Fisk and Tennessee A&I universities took part, as did an Vanderbilt faculty member, Dr. David Hoffheimer, assistant professor of physics.

They tried to set at the B&B Osteria on Sixth Avenue North, and at Herschel's Tix Toe on Church Street, but could not get inside the doors, which were locked by employes.

Yesterday's action marked the third consecutive Saturday the students have tried to desegregate downtown restaurants.

Underwood said:

"WE KEPT the crowds moving. That is the way to avoid serious trouble in these things. Lewis said that there was quite a bit of shouting and shouting at the Tix Toe and the marchers dropped a paper, he filled with water from an upper floor onto the heads of the sit-inners trying to get inside the restaurant."

3 CORE Members Arrested in Lebanon

LEBANON — Three persons, two Negroes and a white, were arrested here yesterday afternoon while handing out Conscience of Racial Equality leaf

In 1964 a group of us form
Southern Student Organizing
Committee (SSOC), a sister
organization to SNCC.

I meet my wife Ronda. We soon get
active in anti-VN War activities also.

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Soon life in Nashville becomes
schizophrenic for me:

Emotionally I lead two lives: White-
coat scientist in the lab during the
week, and highly public civil-rights
activist evenings & weekends.

ALSO many of our physics graduates
soon go to work in military labs.

IT'S TIME TO MAKE A CHANGE!

But to which field of science?

I wander into:

Postdoc in Physical Biochem at
Cornell to study protein structure.

Then faculty job at Mt. Sinai studying
glycoproteins (Cystic Fibrosis)

Both good, but lab studies far removed from contact with people.

Soon I get active in SftP and meet other NYC science activists at SESPA: Scientists and Engineers for Social and Political Action, including Mike Green and Joan Greenbaum.

SftP helps clear my mind about the kind of science work I want to do.

Then I hear a talk at Mt Sinai by Tony Mazzocchi of OCAW, who asks for help training chemical workers in NJ protect themselves from health & safety hazards.

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I study the science literature ,
after all I knew very little about OSH
when we started out, and then teach
a first-at-the-time course for workers
at Rutgers Labor Center in NJ.

I get hooked on the field!

Why is Worker Health & Safety appealing to so many SftP folks?

1. We can interact with and directly help workers protect their health, their lives & conditions of work.
2. We can do this using much of the scientific knowledge we labored so hard to learn.
3. We can relate authentically as scientists to workers and their unions.

I stick my toes in the water

I am lucky enough to get a job as a staff member and writer at Health/PAC, and begin researching and writing articles on OSH for the Health/PAC Bulletin.

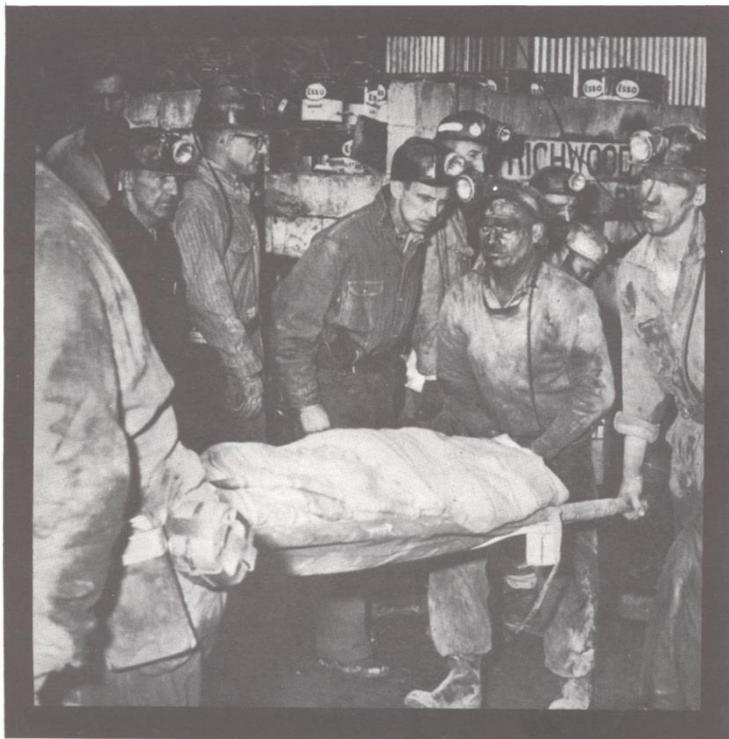
Some are reprinted in SftP:

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SCIENCE FOR THE PEOPLE

OCCUPATIONAL

HEALTH and SAFETY



BI-MONTHLY PUBLICATION OF SCIENTISTS AND ENGINEERS
FOR SOCIAL AND POLITICAL ACTION · SESPA · SEPT. 1975

ASBESTOS— \$cience for \$ale

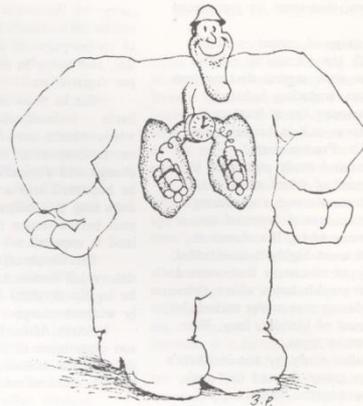
For almost a decade exposes of worker deaths due to asbestos have commanded newspaper headlines. In 1972 the U.S. government held hearings on a new asbestos standard for the workplace. Yet today the human cost of asbestos exposure remains a public scandal.

Despite this recent publicity the dangers of asbestos were discovered not in the 1960's, but back at the turn of this century. The first worker death due to asbestos exposure was diagnosed by a London physician in 1900. [1] His report lay interred in government records for over two decades.

What the general public did not know, the asbestos industry and the workers certainly did. In 1918 U.S. and Canadian insurance companies stopped selling personal life insurance policies to asbestos workers.[2] Also, many workers discovered the hazards of the job soon after being hired and quickly left.

Asbestos disease escaped notice by doctors, in part because its main effect was to exacerbate existing cases of tuberculosis or reactivate dormant cases. But perhaps a more basic reason was that the number of deaths was small, since the number of workers throughout the world was only a few thousand. The asbestos industry was still in its infancy in the early 1900's, with world production of asbestos in 1920 at only 200,000 tons, five percent of present production.

The industry began its rapid growth during the post-World War I construction and automobile booms of the 1920's. With this growth, inevitably, came an upsurge in worker deaths. The medical profession rediscovered asbestos disease in 1924, when Dr. W.E. Cooke reported in the British Medical Journal on the death of a 33-year-old woman from dust inhalation in an asbestos factory.[3] By the end



of the 1920's British doctors had reported a total of 12 cases. What's more, in some instances asbestos disease was found at autopsy with no sign of tuberculosis, unequivocally implicating asbestos itself as the cause.

The "new" disease, called asbestosis, is caused by scar tissue forming around asbestos fibers trapped in the lungs, and is similar to coalminers' black lung. Its earliest symptoms appear mild—a slight persistent cough and shortness of breath upon exertion—usually developing about ten years after first exposure to the dust. If exposure continues, the disease can eventually lead to serious lung damage and death.

In the United States the first asbestos death was reported in 1930. By 1935 a total of 28 asbestos cases had been reported in Great Britain and the United States. [4] Industry had ignored all reports of asbestos disease in the past, but with the number of cases mounting it could no longer do so.

Corporate Strategy

During the 1930's, Johns-Manville, giant of the U.S. asbestos industry, began developing a strategy that was to serve it well for more than 30 years. The main priority of the strategy was the company's economic survival and its profits. These could not be taken for granted in the midst of a major depression and in the face of cutthroat competition with other companies, especially by a company that was in corporate terms still rather small.

The strategy developed on several fronts:

1. build the company as rapidly as possible and weave asbestos into the matrix of the economy so that it would become indispensable.

The Lid Blows

In the early 1960's the research picture changed dramatically as a result of three separate studies. In 1960 a new malady was added to the lexicon of asbestos diseases: mesothelioma, a rare and invariably fatal cancer of the lining of the chest or abdominal cavity.[12]

In 1963 a study of lung smears from 500 consecutive autopsies on urban dwellers in Cape Town, South Africa showed that the lungs of 26 percent had asbestos bodies, the characteristic bodies originally found in the lungs of workers with asbestosis.[13] Both studies received extensive publicity and raised the specter of asbestos as a modern environmental hazard affecting all citizens.

To top this off, in the early 1960's Dr. Irving Selikoff and his associates at Mt. Sinai Medical Center in New York broke industry's hegemony over medical and personnel information by using the welfare and retirement records of the asbestos insulators' union as the basis for conducting an epidemiological study. Now for the first time in the U.S., scientists not beholden to industry conducted large-scale definitive studies on groups of asbestos workers. Beginning in 1964 the investigators reported an unusually high incidence of lung cancer and mesothelioma among asbestos-insulation workers, with time lags of 20 and 30 years, respectively, between exposure and disease.[14] By focusing on workers who were first exposed 20 or more years earlier, the studies highlighted its hazards. Together with the South African studies they made the "magic mineral" front-page news throughout the world.

Industry Fights Back

The asbestos industry responded to these reports by spending \$8.5 million on research and development in 1972, a large fraction of which went to outside medical research centers.[15] In contrast, the National Institute for Occupational Safety and Health (NIOSH) spent a mere \$260,000 on asbestos research grants that year.[16]

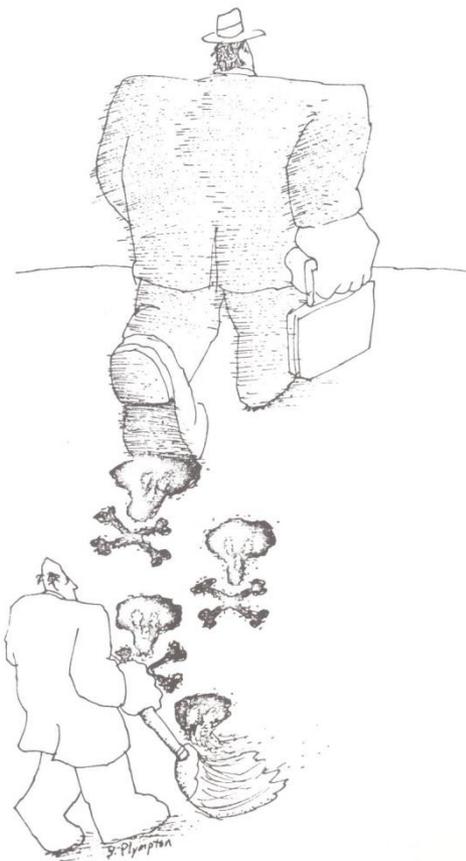
As a result, an industry that had only managed to generate 11 research papers on asbestos in the three decades before 1960 has come up with 33 in little more than a decade since then. The recent studies are just as self-interested as ever. Industry has stopped denying that asbestos causes lung cancer, mesothelioma and asbestosis (although it has not publicly admitted it, either). But research proposals that industry thought would minimize the problem or shift the blame have been given unstinting support.

Minimizing the Problem

A major epidemiological study was published in 1971 by J. Corbett McDonald and his associates at the Department of Epidemiology and Public Health at McGill University in Montreal. It was funded through a grant from the Institute of Occupational and Environmental Health of the Quebec Asbestos Mining Association.[17] The subjects were 11,000 miners in the two largest asbestos mines in Quebec.

Like the earlier IHF study on asbestos miners, this one looks quite impressive until it is examined carefully. Then we find as before that the workforce studied has had relatively limited exposure, and that many other serious methodological errors were made.

Let us consider the duration of exposure of the workforce. The research data shows that many of the miners included in the study worked in the mines for only a short



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Also in the mid-70s

SESPA publishes a pamphlet entitled:

“HARD TIMES: Employment,
Unemployment and Professionalism
in the Sciences”

It concludes:

“We need not only a national organization of scientists, but a national movement of all people to turn the priorities of America around, and establish a society where our labor is rewarding because it is determined by people’s real needs, rather than one in which all labor is organized for the power and profit of a few.”

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On the very last page of this pamphlet is a footnote:

“A preliminary version was presented at the Spring meeting of the American Physical Society where it provoked much hostile comment.”

I dig in further to health & safety

I decide to go back to school to learn about H&S in more depth.

I am accepted to the Harvard H&S program under David Wegman and John Peters.

It is a great learning and social experience.

I return to NYC and go to work for the United Electrical Workers union.

I teach H&S courses at UE locals & help our members deal with problems such as PCBs at the GE plant in NYS. I write a monthly column on H&S for the union newspaper for next 25 years.

AND I learn about the world of work, which in reality I knew little about before.

But by 1983 UE decides to relocate its national office to Pittsburgh.

But Ronda has a great job in NYC with the NYC Health and Hospitals Corporation, which runs the City's public hospitals.

I apply for a position at Hunter College, and am chosen to head its grad program in EOHS.

I love my new job & stay for 23 yrs.

Our program grows; we end up training more industrial hygienists of color than any other U.S. college or university program.

I also serve on the NYCOSH Bd for about 30 yrs.

I retire in 2006.