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THE WAR PHYSICISTS

T H E W A R P H Y S I C I S T S

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Documents about the European protest against the
physicists working for the American military through
the JASON Division of the Institute for Defence
Analysis (IDA) - 1972

edited by

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INTRODUCTION

During the Summer 1972, a movement of protest against American physicists involved in military research flared up in several European Summer Schools; statements, declarations, letters, physical confrontation (as in Paris against Gell-Mann) followed for a few months and left their trace later on in Conference resolutions and personal boycott as far as India and as late as 1973.

I took part in some of this protest and, sincerely, enjoyed myself a lot. It had been a long time since one had such a perfect occasion to see bare the hypocrisy of establishment' physicists; their lust for power, prestige; their arrogance against people "who had not been briefed by General Westmoreland" .

With two friends (Balachandran, of Syracuse University; and Jan Nilsson, of Göteborg) we thought that it could be worthwhile to make all documents in our hands about this protest available to all friends interested. For some reason, this project did not easily materialize. I have now decided (with the agreement of Bala and Jan) to publish the material as it is, rather raw and probably not complete. I have not attempted (except for a few occasional remarks in the introductory paragraphs to each chapter) to pass judgement. To me, much of this material speaks by itself. It is quite clear to me that the Jason members that wrote to defend their activity were mystifying their roles and rationalizing their involvement. They could of course be in good faith but this seems to me rather irrelevant. It would be nice to study better and understand why they mystified their role in that way (in general, "giving sanity to the military" or the like) instead of choosing other value frames ("defending freedom", "helping the free world defend against communism" and the like) . There is a whole culture-analysis to be made on the letters that follow.

I can only hope that there will be comrades willing to work on this raw material: student collectives, radical scientists, people concerned about the relation of science to the interests and the scale of values of the ruling classes. I hope my editing and ordering the material will prove useful.

I would gladly receive criticisms, advice and suggestions about this collection; in particular, I would much appreciate additional material. I would like to thank the many friends that already helped by sending the material available to them.

Bruno Vitale

Naples, Mai 1976

J A S O N

The Institute for Defence Analysis (IDA) is well described (at least for what regards its public image) by an advertisement published on Scientific American, November 1972 ((1)). Its brain child was Jason (whose members as of 1970 are given in ((2))).

About Jason, one should read carefully the two beautiful booklets published by SESPA :

- (A)- Science against the People : The story of Jason - The élite group of academic scientists who, as technical consultants to the Pentagon, have developed the latest weapon against peoples' liberation struggles: "Automated warfare" - Berkeley SESPA , Box 4161, Berkeley, Cal. 94704 ,USA - 1 dollar (1972)
- (B)- Professors in the Pentagon : Providing an index of 300 who consult for the military; and JASON II : Updating our study of Academia's Top Weapon Scientists - Berkeley SESPA , 50 cents (1974)

I can give here only a very short extract of this material. Something about the activities of Jason, from (A) and from the Pentagon Papers (Gravel Edition) ((3)); something about Jason people, from (A) ((4)).

There is an exchange of letters between H.Lewis (Santa Barbara) and C.Schwartz (SESPA) :

H.Lewis to C.Schwartz - October 4, 1972 ((5))

C.Schwartz to H.Lewis - November 30, 1972 ((6))

A good synthesis about Jason, from Science for the People (September 1972) ((7)), will nicely introduce the present collection of documents about anti-Jason protest.

A few letters about Jason were published on scientific magazines, together with short notes about the protest going on :

Physics Today, October 1972 ((8))
 Physics Today, April 1973 ((9))
 Science, February 2, 1973 ((10))
 Science, May 4, 1973 ((11))

Jean-Marc Lévy-Leblond wrote to E.Salpeter, about his Jason membership (pointing to him that he had refused, in 1969, to attend a Colloquium on Astrophysics and Fundamental Particles, to be held in Nice, because of the French government embargo on arms shipment to Israel!) :

J.M. Lévy-Leblond (Paris) to E.Salpeter (Cornell) - November 24, 1972 ((12))
E.Salpeter to J.M.Lévy-Leblond - December 8, 1972 ((13))

Then P.Kleban wrote to M.L.Goldberger, expressing his concern about involving himself with the Federation of Atomic Scientists in the light of the presumed Jason association of some of its (FAS) sponsors. I have not been able to secure a copy of Kleban letter; here is the answer from Goldberger ((14)).

Another exchange of letters about Jason membership was stimulated by the activities of the Battelle Memorial Institute, that is also financing the Battelle Rencontres . What the Battelle Memorial Institute is, is clarified by the presentation in Science for the People, March 1973 ((15)) . Bott and Dyson asked Ogden to help the Battelle Rencontres Committee improve future Rencontres by comments on past ones :

R.D.Ogden (Chicago) to F.Dyson (Princeton) - January 10, 1973 ((16))
F.Dyson to R.D.Ogden - January 16, 1973 ((17))

It is important to know what has been happening to Jason as a consequence of the 1972 - 1973 protests throughout the world . Well, Jason is healthy, safe and thriving , for the sake of American Military Power . The best I can do is to copy information from (B) ((18)) ; we can learn from it a few things about a very neglected aspect of Jason advising, the financial one . We have been told quite a lot of cant about "giving sanity to the military" and the like, but we did not know before that a Summer Study about Turbulence Theory was paid 16,600 dollars to a group of 5 (Case, Dyson, Frieman, Perkins, Lewis) ; or that Kroll and Watson divided the pleasant sum of 6,100 dollars for a Summer Study about Laser Interaction with Matter . Small material trifles, of course, but they help in getting the overall picture .

Another important reading: "The University-Military-Police Complex: A directory and related documents" - NACLA, P.O.Box 226, Berkeley Cal. 94701, 1 dollar (1970)

Scientific American - November '72

AT A CROSSROADS IN YOUR CAREER ?

Consider IDA - an avenue worth exploring in your quest for professional advancement. IDA is an independent not-for-profit organization in Washington that performs significant scientific and technological studies on problems of national importance for the Office of the Secretary of Defense.

IDA's research environment is different from the one you're probably used to. At IDA you're free from commercial pressures. You're free of vexing administrative duties that can cramp your effectiveness. Your whole intellectual capacity is free to focus on critical problems - giving them the full benefit of your technological expertise and analytical initiative.

Research opportunities at IDA satisfy your desires for advancement and personal recognition in a way that management opportunities never do. Your IDA work gives you national exposure within the defense community, and introduces you to prominent R&D concerns across the country. IDA can serve as a stepping stone in your career - providing you with invaluable experience to move on to greater opportunities when the right time comes.

At IDA you study problems on your own, as a project member or perhaps on special panels. These are challenging problems of major national impact, and IDA requires a high-caliber, interdisciplinary staff to deal with them. Our studies relate to the application of present and emerging developments in science and technology. Their outcome will carry the personal stamp of your work. Our findings will help the Defense Department decide what large-scale advanced systems will best meet our country's defensive needs in the 1975-1985 era.

You are in demand at IDA if you meet our qualifications: a Ph.D. or equivalent with 5 years or more experience in your particular field of science or technology. Areas of interest where the value of your background and judgement is needed at IDA are:

Tactical Systems, Strategic Systems, Sea Warfare, Weapons Effects, Advanced Sensors, Missile Defense, Space Technology, Advanced Avionics, Environmental Science, Atmospheric Physics, Transportation Technology, Optics Technology, Information Sciences, Energy Conversion, Radar Technology, Computer Technology, Advanced Propulsion, Electronics Technology.

Please send a résumé - giving your education, major fields of experience, references (persons familiar with your recent technical achievements), and publications - to Mr. T.E. Shirhall, Manager of Professional Staffing, IDA, 400 Army-Navy Drive, Arlington, Virginia 22202.

J A S O N M E M B E R S

Columbia University

Norman Christ
Henry Foley
Richard Garwin*
Leon Lederman

Stanford University

Sidney Drell*
Wolfgang Panofsky*
Allen Peterson

Calif. Institute of Technology

Murray Gell-Mann*
Frederick Zachariasen
George Zweig

M.I.T.

Henry Kendall
Steven Weinberg

University of Chicago

Robert Gomer
S. Courtnay Wright

Harvard University

George Kistiakowsky*

New York University

Joseph Keller

Rockefeller University

Kenneth Case

University of Rochester

Elliot Montroll

National Bureau of Standards

Lewis Branscomb*

NASA, Houston

Joseph Chamberlain

RAND

Robert Lelevier

Princeton University and
Institute for Advanced Studies

Roger Dashen Freeman Dyson
Val Fitch* Edward Frieman
Sam Treiman John Wheeler
Eugene Wigner
Marvin Goldberger*

U.C. Berkeley

Luis Alvarez*
Donald Glaser
Charles Townes*
Kenneth Watson

U.C. Santa Barbara

David Caldwell
Harold Lewis

U.C. Santa Cruz

Matthew Sands

U.C. San Diego

Norman Kroll
William Nierenberg

Walter Munk
Herbert York*

(* indicates someone who has also served on PSAC)

Basic source: List of Jason Members published in "The University-Military-Police Complex: A Directory and Related Documents", published, 1970, by the North American Congress on Latin America, Inc., NACLA, P.O.Box 226, Berkeley, Ca. 94701. We have updated the locations of several people and added two names (Christ and Lederman: given in PHYSICS TODAY, 10/72, p.63). Four names have been removed from the 1970 list: one person (Christofilos) is deceased; three persons (Bjorken, Blankenbecler and Salpeter) are no longer members, according to private information we have received.

JASON AND THE "MCNAMARA FENCE"

The most detailed public account of Jason's contribution to the Vietnam War is contained in the Pentagon Papers: the 1966 Jason summer study which gave birth to a new form of technological warfare, now known as the automated, or electronic, battlefield. The situation leading up to this report is as follows.

Early in 1966, a clique of Harvard-MIT scientists with high level connections in Washington persuaded Defense Secretary Robert McNamara to sponsor a special study on "technical possibilities in relation to our military operations in Vietnam." With this prompting, McNamara formally requested the scientists to look into the feasibility of "a fence across the infiltration trails, warning systems, reconnaissance (especially night) methods, night vision devices, defoliation techniques and area denial weapons."

This special scientific study group was assembled under the auspices of the Jason Division of IDA; the group of 47 scientists represented "the cream of the scholarly community in technical fields".... "a group of America's most distinguished scientists, men who had helped the Government produce many of its most advanced technical weapons systems since the end of the Second World War, men who were not identified with the vocal academic criticism of the Administration's Vietnam policy." This Jason study group met during the summer of 1966, starting off with a series of briefings by high officials from the Pentagon, the Central Intelligence Agency, the State Department and the White House. They were given access to secret materials.

The Jason report, given to McNamara at the beginning of September, was in four parts: "1. The Effects of US Bombing in North Vietnam; 2. Viet Cong/North Vietnam Army Logistics and Manpower; 3. An Air Supported Anti-Infiltration Barrier; and 4. Summary of Results, Conclusions and Recommendations." This report was regarded as particularly "sensitive" and the only persons to receive copies, outside of McNamara, were General Wheeler and Mr. Rostow. The writers of the Pentagon Papers evaluated this Jason report as exerting "a powerful and perhaps decisive influence in McNamara's mind," concerning future US policies in Vietnam.

From the Gravel Edition of the Pentagon Papers (p.120):

Having submitted a stinging condemnation of the bombing, the Study Group was under some obligation to offer constructive alternatives and this they did seizing not surprisingly, on the very idea McNamara had suggested - the antiinfiltration barrier. The product of their summer work was a reasonably detailed proposal for a multisystem barrier across the DMZ and the Laotian panhandle that would make extensive use of recently innovated mines and sensors. The central portion of their recommendation follows:

The barrier would have two somewhat different parts, one designed against foot traffic and one against vehicles. The preferred location for the anti-foot-traffic barrier is in the region along the southern edge of the DMZ to the Laotian border and then north of Tchepone to the vicinity of Muong Sen, extending about 100 by 20 kilometers. This area is virtually unpopulated, and the terrain is quite rugged, containing mostly V-shaped valleys in which the opportunity for alternate trails appears lower than it is elsewhere in the system. The location of choice for the anti-vehicle part of the system is the area, about 100 by 40 kilometers, now covered by Operation Cricket. In this area the road network tends to be more constricted than elsewhere, and there appears to be a smaller area available for new roads. An alternative location for the anti-personnel system is north of the DMZ to the Laotian border and then north along the crest of the mountains dividing Laos from North Vietnam. It is less desirable economically and militarily because of its greater length, greater distance from U.S. bases, and greater proximity to potential North Vietnamese counter-efforts.

The air-supported barrier would, if necessary, be supplemented by a manned "fence" connecting the eastern end of the barrier to the sea.

The construction of the air-supported barrier could be initiated using currently available or nearly available components, with some necessary modifications, and could perhaps be installed by a year or so from go-ahead. However, we anticipate that the North Vietnamese would learn to cope with a barrier built this way after some period of time which we cannot estimate, but which we fear may be short. Weapons and sensors which can make a much more effective barrier only some of which are now under development are not likely to be available in less than 18 months to 2 years. Even these, it must be expected, will eventually be overcome by the North Vietnamese, so that further improvements in weaponry will be necessary. Thus we envisage a dynamic "battle of the barrier," in which the barrier is repeatedly improved and strengthened by the introduction of new components and which will hopefully permit us to keep the North Vietnamese off balance by continually posing new problems for them.

This barrier is in concept not very different from what has already been suggested elsewhere; the new aspects are: the very large scale of area denial, especially mine fields kilometers deep rather than the conventional 100-200 meters; the very large numbers and persistent employment of weapons, sensors, and aircraft sorties in the barrier area; and the emphasis on rapid and carefully planned incorporation of more effective weapons and sensors into the system.

The system that could be available in a year or so would, in our conception, contain (sic) the following components:

- Gravel mines (both self-sterilizing for harassment and non-sterilizing for area denial).
- Possibly, "button bomblets" developed by Picatinny Arsenal, to augment the range of the sensors against foot traffic."

- SADEYE BLU-26B clusters, for attacks on area-type targets of uncertain locations.
- Acoustic detectors, based on improvements of the "Acoustic Sonobuoys" currently under test by the Navy.
- P-2V patrol aircraft, equipped for acoustic sensor-monitoring. Gravel dispensing, vectoring strike aircraft, and infrared detection of campfires in bivouac areas.
- Gravel Dispensing Aircraft (A-1's, or possibly C-123's)
- Strike Aircraft
- Photo Aircraft
- Photo-reconnaissance Aircraft
- Photo Interpreters
- (Possibly) ground teams to plant mines and sensors, gather information, and selectively harass traffic on foot trails.

The anti-troop infiltration system (which would also function against supply porters) would operate as follows. There would be a constantly renewed mine field of nonsterilizing Gravel (and possibly button bomblets), distributed in patterns covering interconnected valleys and slopes (suitable for alternate trails) over the entire barrier region. The actual mined area would encompass the equivalent of a strip about 100 by 5 kilometers. There would also be a pattern of acoustic detectors to listen for mine explosions indicating an attempted penetration. The mine field is intended to deny opening of alternate routes for troop infiltrators and should be emplaced first. On the trails and bivouacs currently used, from which mines may- we tentatively assume - be cleared without great difficulty, a more dense pattern of sensors would be designed to locate groups of infiltrators. Air strikes using Gravel and SADEYES would then be called against these targets. The sensor patterns would be monitored 24 hours a day by patrol aircraft. The struck areas would be reseeded with new mines.

The anti-vehicle system would consist of acoustic detectors distributed every mile or so along all truckable roads in the interdicted area, monitored 24 hours a day by patrol aircraft, with vectored strike aircraft using SADEYE to respond to signals that trucks or truck convoys are moving. The patrol aircraft would distribute self-sterilizing Gravel over parts of the road net at dusk. The self-sterilization feature is needed so that road-watching and mine-planting teams could be used in this area. Photo-reconnaissance aircraft would cover the entire area each few days to look for the development of new truckable roads, to see if the transport of supplies is being switched to porters, and to identify any other change in the infiltration system. It may also be desirable to use ground teams to plant larger anti-truck mines along the roads, as an interim measure pending the development of effective air-dropped anti-vehicle mines.

J A S O N P E O P L E

Jason people are "insiders". They have access to secret information from many government offices and they expect their advice to be at least seriously considered, if not followed, by top-level policy-makers. Those who engage in criticism of government policies without the benefit of such inside access are termed "outsiders". SESPA people are outsiders, along with plenty of other people.

When a debate arises between insiders and outsiders, invariably the argument is used that only the insiders know the true facts and that therefore the outsiders' positions should not be taken seriously.

In our efforts to learn as much as possible about the work of Jason, we have not only gone over various published sources of information, but we also personally interviewed as many Jason people as we could find locally. What we learned was hardly anything new and concrete about Jason project (the interviewees were very secretive about anything that might conceivably be classified information), but a great deal about the attitudes and perspectives these men hold toward their service to the government and the military.

In May, June and July, 1972, several Berkeley SESPA people arranged interviews with U.C. physics Professors Kenneth Watson and Charles Townes, molecular biology and physics Professor Donald Glaser, and Princeton physics Professor Marvin Goldberger, who was visiting in Berkeley; Professor Luis Alvarez (Berkeley physics) would not agree to a meeting but did engage in some individual conversations; Stanford physics Professor Sidney Drell was confronted with some questions during an October visit to this campus. The following is a summary of these encounters.

KENNETH WATSON
(Professor of Physics,
UC, Berkeley)

Watson was one of the group that founded Jason in 1959. At first they were thinking of forming their own private consulting company, but they finally decided to let IDA be their business manager; this avoided the problem of profits (taxes). There is usually a 6-week summer study session and then a couple of long weekend meetings during the school year. Government people come and outline problems they would like Jason to solve. Most of the work is for the Defense Department. The purpose of Jason is to supply purely technical information for the government; it is non-political. Jason has never taken a position on any subject, as an organization: We are just a group of individuals.

When asked what projects Jason had worked on, he would consistently refuse to comment on any specifics, because of official secrecy of their work. He would even refuse to comment on those things about Jason which have already appeared in public (through the Pentagon Papers).

As to his personal attitude about the military, he said that since it is an \$ 80 billion budget he couldn't make a blanket statement. When pressed to give some averaged evaluation, he said, "If I felt very strongly against (the military), I wouldn't be in Jason. It's a thousand dimensional space. It's much more complicated than to give a simple answer to such a complicated question."

At a faculty meeting during the time of the Cambodian invasion, 1970, Watson was heard to comment, "Why is everyone getting so upset about such a little war?"

It is generally believed that Watson is heavily involved in military-related outside consulting work beyond Jason, but no detailed information on this is available.

During our interview he said that there was often a close continuity between the problems he worked on for Jason and the pure research he carried out in the University; and he pointed out that therefore there was often no clear-cut separation between the time he spent on one thing and the time he spent on the other.

CHARLES TOWNES
(Professor of Physics,
UC, Berkeley. Nobel Prize,
1964, for work leading to
invention of the maser and
the laser.)

Townes is undoubtedly the most involved and the most influential of the science advisers we have spoken with. In addition to his original and continuing association with Jason and IDA, he has consulted for the AEC and the State Department, planned NASA policy, and helps direct affairs of the National Academy of Science. He also accepted a position as chairman of a new top-level science advisory committee for General Motors Corporation.

As vice-president for research of IDA, Townes helped set up the entire IDA service, as well as its Jason division. He felt that the ingroup of scientists who had been influential in the government during World War II were getting rather old and some new blood was needed; so Jason was formed, with some of the country's best young physicists, in the expectation that they could have an influence from inside the government.

In an earlier discussion, Townes described the government science advising business generally. He said that there was a good deal of incest, in that people with the most experience would be re-used; and there was a practise of bringing younger people into subsidiary committees where they could learn by experience how to handle things, then gradually move up if their performance was found satisfactory. He listed the criteria as: talent, objectivity and willingness to work; it is also basic that the adviser accept the idea that he works privately for the agency or the person whom he is advising, complete secrecy is required even though the scientific recommendations given are often not followed. He stated that the human element -- the personal relations between the adviser and the advised -- is very important to the success of the advising process; yet he continually stressed that the advising was strictly objective, non-political, and related only to technical evaluations. He measured the success of IDA

and Jason by the fact that several of its people were advanced to serve on PSAC.

Regarding Jason's major work on questions of strategic weapons, Townes saw their role as working effectively between the two rivals: the Defense Department and the State Department. Defense, concerned primarily with the security of the U.S., was usually in favor of more weapons; State, concerned with keeping other countries happy, was more interested in arms control. Jason's job was to transfer information between the two while making both parties feel that you were helpful to them.

Townes was involved in Vietnam war issues more through PSAC than through Jason. He claims that the Jason 1966 report recommending an end to the bombing of North Vietnam was not followed by the Administration because it had certain flaws -- some of the statements in that report came "from the depth of the heart" rather than from objective analysis. PSAC later did another study of this same problem and was more careful in its evaluation of the effectiveness of the bombing. Their report was delivered to President Johnson just a few months before the bombing was stopped (1968). When asked what he thought about Nixon's present bombing campaign in North Vietnam, Townes replied that the situation is different now and he is not in close touch with all the facts. His personal feeling is that he is against the bombing, but he would not make a public statement against Nixon's bombing policy because he is not well informed technically.

Philosophizing broadly, Townes said he thought the world would be better off if we didn't have military establishments; but, since this is not the way the world is, since we don't like to be kicked around, we do need a military.

Townes spoke about his feelings regarding the use of laser-guided bombs in Vietnam. His original research led to the invention of the laser, although he states that he has not had anything to do with laser-guided bombs. He would like to see the U.S. get out of Vietnam or arrange a truce. But this has not happened, and one has to accept the fact that a bombing policy is in effect.

Laser-guided bombs allow one to pinpoint on the target rather than scattering bombs all over the countryside. Thus, although it is a difficult decision, Townes felt that laser-guided bombs were a good and humane contribution.

In his office, on campus, Townes has a heavy steel file cabinet with a dial-combination safe lock. The nameplate reads, "General Services Administration Approved Security Container, Mosler". Another sticker reads, "Institute for Defense Analyses - IDA 1998; P.O. 14425". Another notice on the safe asks that anyone discovering this cabinet to be open should immediately contact Townes, giving his home address and phone number. Townes told us he thinks it is important to have a classified

safe here on campus so that he can work with classified documents. In this way, he explained, the University makes useful contributions to the government.

DONALD GLASER

(Professor of Physics and Molecular Biology,
UC, Berkeley. Nobel Prize, 1960, for the
invention of the bubble chamber.)

Glaser joined Jason about 1960; there were ten or fifteen members at that time, and he was recruited by Ken Watson. He joined because he wanted to be more effective in helping the government; also, through IDA they could be paid higher consulting fees than the government was allowed to pay directly. An important motivation for scientists participating in Jason was the view that the Pentagon was often irresponsible in proposing large new weapons systems that would be very wasteful of money and/or would escalate the arms race, and Jason could hope to argue convincingly against such programs. Jason had extremely high levels of clearance to government information: Top Secret is a low level of clearance.

Among Jason members there were a variety of political points of view, and one could also see considerable changes in individual political outlooks over the years, according to Glaser. He admits that politics was not a small and incidental part of their considerations, and at various stages social and political scientists, economists, and others joined the conversations in an attempt to balance as many of the recognized factors in decision-making as they could deal with.

Glaser himself took part in the Jason 1966 summer study analysing the effectiveness of the U.S. bombing in North Vietnam. Their report, which recommended a halt in the bombing, was greeted with favor by McNamara, but President Johnson did not follow that advice. In such cases when Jason's advice was not taken, Glaser explained, the government felt that "non-technical factors" deserved overriding consideration. In a more relaxed moment he expressed his feeling, "I now think it was a con job -- they used us technically but didn't listen to us." Since that time (1966), Glaser states, he has not participated in Jason activities, but he has not officially resigned because he would like to maintain his security clearance in case he should want to return to government service.

His general evaluation of his Jason work is as follows: Smart scientists make better weapons than dumb ones. If you prune out some bad projects, you definitely help the government: Jason was able to help both the military and civilian parts of the government. Regarding the political implications of helping the military, Glaser felt that the military has a legitimate role and it is better if that role is done well. He is not in favor of enormous nuclear overkill but he is in favor of effective weapons serving purposes such as those in World War II, the defense of western Europe after that war, blocking nuclear missiles from Cuba, and supplying fighter planes to Israel. He disagrees with U.S. policies

in Vietnam and in Greece but overall he supports the idea that the U.S. carries a responsibility for development of much of the world.

His current scientific research is in bacterial genetics. This could very well lead to some form of biological warfare but you can't foresee the applications of science. You need the government to control this. Certainly science can be used for dangerous purposes. On the whole, as Glaser saw it, our society is successful, people don't want revolution.

And it is necessary that we constantly improve our weapons to be prepared to defend ourselves against the next Hitler. When asked if the next Hitler might arise in America, he expressed confidence that it would more likely be in China or Russia.

MARVIN GOLDBERGER
(Professor of Physics, Princeton University)

Goldberger was chairman of Jason's steering committee from 1959 through 1966. He was appointed to PSAC in 1965 and his last full-time participation with Jason was the summer study of 1967. He is at present not a member but is an Advisor to the steering committee. While chairman, he had a major responsibility for choosing topics of Jason summer study programs, including the 1966 study and report on the Vietnam war. Jason had been concerned about the war in Southeast Asia for a number of years and had an informal study group during the summer of 1964. Prior to 1966, however, there was no actual involvement in specific war-related areas. By mid-1965, Goldberger himself was becoming disillusioned about the U.S. involvement in the war. In early 1966, the steering committee decided that Jason should become involved more deeply and joined forces with the "Charles River Gang" (Kaysen, Kistiakowsky, Wiesner and Zacharias) who had independently proposed an involvement by the scientific community. The combined group met for three weeks briefing on the war at Wellesley and two major study areas were identified: (1) An analysis of the effectiveness of the bombing of North Vietnam, and (2). The feasibility of construction of an anti-infiltration barrier, an idea originally suggested by Roger Fisher. It was this latter topic that was pursued by the true Jason group at Santa Barbara. The whole effort was attributed to Jason, but this is incorrect.

Goldberger regarded the barrier project as a serious attempt to end U.S. involvement in Vietnam. The bombing campaign was a failure and a military victory by ground forces was impossible. By this time, Goldberger regarded the U.S. role in the war as completely immoral and was trying in some realistic way to work towards U.S. withdrawal.

With regard to the part of the study dealing with the air war, Goldberger states that the conclusions reached were obvious at the outset. It simply was an ineffective method, militarily, of achieving the military objective of cutting off the flow of men and material. The problem was the reluctance on the part of the military to give it up. Even if it contributed 1 or 2% effectiveness to the total war effort, the military saw it as worthwhile.

Goldberger saw the barrier idea as something that could be substituted for the air war which should drastically reduce civilian casualties and which might lower the overall temperature of the war. McNamara like the idea and in the wake of the Jason report, set up a large project in the Pentagon to develop and implement it. The current electronic battlefield is a much more sophisticated evolution from the Jason barrier concept. The original Jason outline used only "state of the art" devices consisting of existing mines, sensors, and anti-truck, anti-personnel weapons designed to be deployed in the shortest possible time. The idea was to block the truck supply routes and to make travel over the Ho Chi Minh trail system sufficiently hazardous to slow down infiltration.

Goldberger and others hoped that the barrier, if successful, would lead to some sort of reasonable resolution of the war. This might take various forms, one of which would have been the withdrawal of U.S. ground forces either totally or into enclaves around the populated areas but disengaged from offensive actions with a reduction of the fighting to a level that it would be reported only on page 34 of the New York Times. That is, barring a political solution, the war might just peter out.

With regard to the Jason group more generally, Goldberger feels that overall it is a good thing. Since it is unfortunately necessary for the U.S. to maintain a defense establishment to deter strategic wars, we should have the benefit of the best technical advice. In addition, it is valuable to have an impartial critical group familiar with defense problems to counter-balance technically absurd military proposals. Jason members are and have been the most effective and vocal opponents of the Safeguard ABM system and their credentials have made their opposition credible. (However, when asked about their failure to stop the U.S. deployment of MIRV - the multiple warhead nuclear missile - Goldberger said, "It (our advising) is a one percent effect; we're not very important.") The group is currently involved in projects on behalf of the Arms Control and Disarmament Agency as well as in many other unclassified civilian activities (such as air traffic control).

Goldberger is currently not working for the government except as a consultant to the Arms Control and Disarmament Agency. He and many others would probably be willing (and in some cases anxious) to return to Washington if McGovern were elected. He said that working at high levels of the government is "very seductive" in many ways. But it is often much harder to try to work constructively within the system than to be an outside critic. Good people are needed for both jobs.

LUIS ALVAREZ

(Professor of Physics, U.C. Berkeley;
Nobel Prize, 1968, for contributions
to elementary particle physics)

Alvarez has repeatedly refused to meet with SESPA people to discuss his involvement with Jason, although he has engaged in conversations with

three of us individually. He states that his position in Jason is as one of the eight-man group of "Jason Advisors", along with Herbert York, W.K.H. Panofsky and Marvin Goldberger. Alvarez feels that Jason is a young man's organization and he can help it best by keeping in touch with their activities and offering advice based upon his World War II experiences.

He has acknowledged his contribution to the development of "starlight viewing devices" that have been widely used by the U.S. military in Vietnam. As a member of a government advisory committee in the early sixties, he urged the government to push the development of this technology because he saw that it would be an important weapon to use against guerrilla soldiers, who often use the night-time darkness to cover their movements.

President Nixon has recently appointed Alvarez to serve on PSAC.

When SESPA started compiling its material on Jason for this publication, we wrote to each of the above five Jason professors, saying, "Enclosed is a draft version of our summary of discussions that were held with you. We invite you to comment on this draft; and we would be interested in any additions or corrections that you think should be made to this draft."

From Professors Alvarez, Glaser and Goldberger we received cooperative replies; and a number of their comments have been incorporated into the final versions we have presented.

From Professor Watson, we have received the following letter (dated October 10, 1972):

"This is in reply to your request for comments on your SESPA report following our conversation. This report contains several misrepresentations and/or quotations out of context. More significantly, it violates the conditions under which I agreed to meet with SESPA, which were that I would listen and you people would talk.

You do not have my permission to issue this report of our conversation.

Sincerely yours,

Kenneth M. Watson"

From Professor Townes, we received the following letter (dated October 6, 1972):

"I am replying to your note of September 29 enclosing a statement which you say is a summary of discussions held with me and you are considering publishing. The whole statement is so different in fact and

in meaning from my information and from views I expressed that I find it difficult to see how it can be adequately corrected. Relatively few sentences in the statement are free of some substantial error or misrepresentation. You do not have my permission to publish such a misrepresentation. In addition to ethical issues, a publication of this type would raise serious questions of damage to academic freedom and of libel.

Sincerely,

Charles H. Townes"

Many SESPA members were delighted with this response. ("Great. If he wants to sue us for libel, then we can get more discussion of this whole business in open court.") However, in an attempt at accomodation, a second letter was sent to these professors, urging them to point out in detail any portions of our material which they thought were inaccurate. Townes' reply was a reiteration of his earlier position: condemning the entire piece and "strongly request(ing)" that we do not attribute these views and statements to him; but he did not cite even one example of anything in our summary that he objected to. Watson has not replied at all.

MURRAY GELL-MANN

(Professor of Physics at Cal. Tech.
Gell-Mann is presently a member of PSAC.
Nobel Prize, 1969, for contributions to
the theory of elementary particles.)

In 1970, the Student Mobilization Committee published a set of secret minutes it had obtained on a 1967 Jason seminar on problems of counter-insurgency. The regular Jasonite participating was Dr. Murray Gell-Mann and the main thrust was to find ways of getting social scientists usefully involved in solving problems of interest to the military. Selected quotes:

"Gell-Mann: Can we find out what effect increasing police density or ear cutting, or other negatives have on villager attitudes ?"

"The assembled experts also occasionally strayed to the subject of whether a Jason social science (SS) division was necessary or possible." "A Jason S.S. group could focus on domestic as well as foreign countries. M. Gell-Mann suggested a focus on third (world) countries."...

"Gell-Mann: The Jason idea has these advantages:

- 1) Jason have a choice of problems.
- 2) The government has the use of their time.
- 3) They choose their own colleagues.
- 4) They can affiliate with agencies more readily.
- 5) The Jason prestige helps corruption and makes S.S. available to necessary tasks.

"Gell-Mann: There are appeals: congenial group, money, interesting problems -- like the existence of Thai communists."

Gell-Mann has recently become involved in the ecology movement: "We can see a need for humane rationality and, in some cases, an opportunity for scientists to participate..." (Physics Today, May, 1971). One question put to Gell-Mann in his Paris confrontation was: "How could he be interested in the preservation of the American countryside from pollution by highways, without worrying about some 20 million bomb craters that pit the Vietnamese earth?" (Le Monde, 6/15/72).

There is a story, widely circulated among physicists, that at some time several years ago Gell-Mann made a personal visit to Vietnam to study U.S. military problems there first-hand.

SIDNEY DRELL

(Professor of Physics at Stanford, and
Deputy Director of Stanford's Linear Accelerator)

On October 2, 1972, Drell visited Berkeley and gave a physics lecture at the Radiation Laboratory. Several SESPA people wanted to question him about his Jason work and, after his planned lecture, he stayed to defend his work for the government. The Daily Californian reported the discussion with SESPA as follows:

"SESPA: I am very concerned with the role of science and its effect on warfare. Science helps the warfare. Science helps the war go on. How do you feel about the structure of science and the Vietnam War? Do you contribute to the electronic battlefield?"

Drell: The organization I work for - Jason - is accused of this and that. Jason is a very secretive organization. I know very little about it. Since I've been in Washington, I've seen the government do things I like and things I dislike. We need to have critics not just on the outside, but on the inside too.

SESPA: What do you work on exactly?

Drell: I don't feel obligated to tell you. Look at the record though. If one has any confidence in one's government, one must do something, I think.

SESPA: There's a problem though: there is no record of what you do in Jason. Oh, excuse me, there is about a one percent record.

It's nice to say, Sid (Drell), that the responsibility rests with the President, but that's not all true. We have to ask about our scientists who advise the President (about the Vietnam War).

Drell: There's a system in which all scientists are involved: some are on the outside; some are on the inside. I am on the inside, and you and other scientists are on the outside. I like this system of critics in and

out of the government.

SESPA: Explain why you feel you must support Nixon.

Drell: Mr. Nixon is our President, and I will do anything, within reason, to support him. Take, for example, the SALT talks.

SESPA: The SALT talks aren't really the point. When you say 'support the President' does that mean you'd kill Vietnamese ?

Drell: Oh, Charley, why don't you debate someone else ? I thought this would be serious."

Earlier, we told of the 1968 trip of Garwin and Kendall (two Jason People) to Vietnam, apparently to work on the implementation of the electronic battlefield system. A private source has informed us that Kendall, upon his return from that trip, stopped off at Stanford and had a long discussion with Drell on these problems. (Drell at this time was on PSAC.)

SESPA asked Drell to comment on this report. He would neither confirm nor deny that he had met with Kendall on that occasion. He stated only that he had conferred many times with Kendall on many topics. When pressed to be more specific, Drell finally admitted that he was "not totally ignorant" of the episode in question, but he refused to talk to SESPA about it.

While Gell-Mann was being confronted by young scientists in Paris last summer over his Jason work, Drell had similar experiences in Rome and in Corsica. As reported in Physics Today (Oct. 1972,p.63), "Drell was asked to denounce his participation in Jason and to condemn publicly 'American war crimes.' Drell refused, offering instead to discuss Jason with the students any time after giving his first physics lecture. This offer was rejected, and then Drell asked those who wanted him to start lecturing to stand. Only about five students rose, and Maurice Levy, director of the institute, said that if Drell could not talk the school would terminate." And so it did.

The current Chairman of the Jason group is Professor Harold Lewis, Professor of Physics at U.C. Santa Barbara. On September 28, 1972, SESPA wrote to Dr. Lewis asking if he could supply an up-to-date list of the people who are part of the Jason group. The best previous source we had was a list of Jason members (43) published in 1970 by NACLA, and we asked Lewis if he would at least indicate what corrections should be applied to up-date that information. His reply follows:

UNIVERSITY OF CALIFORNIA , SANTA BARBARA

October 4, 1972

Dr. Charles Schwartz
Department of Physics
University of California
Berkeley, California 94720

Dear Charlie:

Were it not that hard experience has taught me the consequences of the release of people's names, I would have no objection whatever to correcting your list (the number of correct names on it exceeds the number of incorrect ones, but the preponderance is by no means overwhelming).

Unfortunately, however, SESPA has compiled a miserable record, especially in New York, in its disregard for both truth and for minimal standards of human decency. When the personal harassment of individuals reaches the point at which a family receives anonymous phone calls threatening the lives of the children, I think that you and other honest people ought to seriously consider the Pandora's box you have opened by giving this harassment some legitimacy. You have no monopoly on outrage about the war in Vietnam, and history shows us what happens to a movement when it provides a haven for thugs. Gresham's law is applicable.

SESPA often asks people whether they are concerned about the uses to which their work will be put, and I ask you the same question with regard to lists of names.

I really regret having to write such a negative letter, because I know that you and I could discuss the issues (fewer than you probably think) on which we differ in substance. The world has been making grudging and halting progress toward peace, and SESPA is more of a hindrance than a help.

Best regards,

H.W. Lewis

Our response to Lewis' refusal to make public the membership of Jason is reproduced below:

=====

SCIENTISTS AND ENGINEERS
FOR SOCIAL AND POLITICAL
ACTION
P.O. BOX 4161
BERKELEY, CALIFORNIA

November 30, 1972

Dr. H. W. Lewis
Department of Physics
University of California
Santa Barbara, California 93106

Dear Dr. Lewis,

As justification for refusing to help us up-to-date our list of Jason members, you cite alleged phone threats against a physicist whom SESPA had exposed. We find it absurd to compare these actions on the part of a few frustrated and powerless people to the bombing, burning, maiming and killing of millions of Asian people, which has been deliberately facilitated by the privileged Jason scientists who hide behind a veil of "scientific objectivity" and military secrecy.

You ask us to think about the consequences of making the work of Jason public knowledge. This we have done. SESPA is in favor of democracy; of public officials, including science advisory, who can be held accountable and responsible for their actions by the American public, whom they supposedly serve. A prerequisite for this is an informed and alert populace. Our aim, then, in publishing this information, is to aid in the process of accountability through normal political channels.

SESPA does not advocate threats against individuals. On the contrary, it is the arrogant and anti-democratic withholding of knowledge and power from citizens which may frustrate some to the point of desperate acts.

As for your comments on the prospects for world peace, the facts are clear. SESPA and SESPA members have been leaders in the active opposition to the war in South-East Asia, and the policies which engendered that war. In stark contrast, Jason scientists have been instrumental in providing the genocidal technology required for prosecuting the un-

ending war in South-East Asia. While many of them, today, publicly profess to be against the war, they continue to contribute their scientific talents to the military.

In the last analysis, the difference between you and ourselves is a basic political difference. You seem to believe that world peace can be brought about only by the secretive manipulations of Nixon, Kissinger and Jason scientists. We believe that it is the right, and indeed, the obligation, of the American people, working with the people of other nations, to bring about peace and justice in the world.

Science For the People

Martin Brown Charles Schwartz
for SESPA

HASTEN, JASONGUARD THE NATION

(Science for the People, September 1972)

We represent a group from the academic community of New York City. We have been alarmed for some time with the strong and increasingly symbiotic relationship between our universities and the military complex. Recently we constituted a group to attack this relationship and expose its often inhuman ends, ends which we consider completely opposed to the proper purposes and functions of a university. One of our first targets was the Jason Project, and in particular the complicity of Columbia University and faculty members in this project. We have acquired correspondence between the Department of the Army and members of Columbia University. This correspondence, coupled with reports from the Institute of Defense Analysis (IDA) and excerpts from the Congressional Record, has convinced us that our attack on Jason and alarm at university complicity is entirely justified. We are including copies of the documents for you because we believe that a wider knowledge of their contents is most important for the health of our institutions and our country. We would like to invite you to make us of the documents as you see fit. In addition, any suggestions you may have for their use, or any additional data you may have, would be appreciated. Furthermore, if you care to join a public protest against Jason or against the wider issue of university complicity, we welcome your assistance and interest. We also call upon those of you who are scientists to consider whether there are files at your institution which should be open to the public.

Jason scientists in the past have helped create concepts for use in the "automated battlefield". This have been hailed on the floor of the U.S. Senate as "... one of the greatest steps forward in warfare since gun powder."¹ It includes a galaxy of automated anti-personnel weapons, which have indeed succeeded in bringing warfare to a new depth of inhumanity. Many of these weapons were developed and tested in the Vietnamese battlefield.

As we read the documents three major points emerge. Even though Jason members claim the contrary, we see that the Defence Department has been able to shape the direction of research undertaken by members of the academic community. An example of this is the increasing importance which Jason played in research on counterinsurgency from 1964 on. IDA Annual Reports document this as follows: "Increased Government attention

to such problems as counterinsurgency, insurrection and infiltration led to the suggestion that Jason members might be able to provide fresh insights into problems that are not entirely in the realm of physical science..."² The Defence Department's general intent of influencing the direction of research is indicated by the enclosed letter of 28 February 1964, which reveals the existence of an annual Army Research Plan. This indicates "... promising areas of research... to assure that the Army's effort is well represented in the main stream of scientific research in currently popular areas and in work considered to be rewarding to military requirements. Such research... could be considered indigenous to the Army and of relatively little value to the civilian economy... (i.e.) the field of military explosives and rocket propellants."

Jason members and Columbia University officials have claimed that Jason members take part in projects as individuals, and that the university is not involved. In fact, the documents clearly indicate that there is both a direct and indirect quid pro quo relationship, between the military and the university and that this is the intent of both parties. The services the university offers are indicated by the White House Fact Sheet of 10 September 1963: "... key scientists and other to be contacted are in positions in the scientific community which enable them to monitor thesis and other appropriate research work and to make available to the Army the generated information."³ Fact 5 points out that "... Counsel of the Association of State Universities has been obtained for guidance in expansion of the program."⁴ The letter of 15 October 1965 also demonstrates that the university allowed the army to store confidential documents in the Low Memorial Library.⁵

At the same time the Defence Department offers benefits to the university. As in the letter of 26 February 1964, "... the possibility exists that from time to time we (the Advanced Technology Group of the Army Research Office) may be able to directly support or to assist the University in getting support from other Army agencies. To this extent then the assistance we request need not be a unilateral arrangement (italics added)."⁶ On December 18, 1969, Congressman Daddario before the House of Representatives spoke of "... the unique dependence of the scientific community upon military support." These quotations show that such a solid structure on interlocking needs exists, that some scientists and some universities have become the pawns of the military.

In attempting to deny any responsibility for the direction and acts of the

military complex, Jason members have claimed that "military research would go on" (statement of Professor Ruderman and Foley), unhampered by Jason's absence. In fact, the documents indicate that Defence Department analysts consider the efforts of academic scientists vital and indispensable. This is borne out by the entire White House Fact Sheet and the remarks of Congressman Daddario before the House of Representatives on December 18, 1969 as follows: "... we must be very careful that, in making program transfers our most talented young people are not adversely affected. It would be especially unfortunate if competition... resulted in alienation of these new young talents. We can ill afford a lost generation of science skills (*italics added*)."⁷ The moral here is clear: if academic scientists in sufficient number chose to act in concert, they can bring considerable leverage to bear on the direction of the American military machine. Academic scientists cannot evade this responsibility. It is not necessary to cooperate from the inside to bring pressure to bear. Clearly non-cooperation is what the military complex truly fears.

The poisonous effect of university-military cooperation is clearly evidenced in the documents when they reflect the increasing attempts at secretary on both sides concerning the details of this cooperation. We note that Columbia University accepted the classified Army Research Plan.⁸ We note that IDA reports become increasingly elliptical and after 1968 are hard to come by. Surely if, as some universities claim, no harmful research is being done, then there is no excuse for harboring secret documents.

If, after you read these documents you decide that more work is need in this cause, we hope you will send us your suggestions, inform us of other facts we lack, and join us in our effort.

THE JASON PROJECT

On April 24, 1972, the New York Regional Anti War Faculty, including professors from twenty colleges and universities in the New York area, members of the Scientists and Engineers for Social and Political Action (SESPEA), and other supporters, including Columbia Students, occupied the physics building at Columbia University.

This non-violent act of civil disobedience was a protest against the intensification of the air war in Indochina and the participation of physics professors at Columbia in the activities of the Jason Division, Institute for Defense Analyses.

The civil disobedience at Pupil Hall was not directed against students, faculty, workers of President McGill. There was no demand that anyone be fired. The individuals sought, by dramatic moral witness, to call the university community's attention to the war research of the Jason Division and to appeal directly to the individual conscience of the Jason members.

THE JASON ADVERTISEMENT

On April 28, Spectator carried a full-page advertisement signed by Professor Foley and Ruderman purporting to explain Jason. We urge the university community to read for themselves about Jason in the Senator Gravel Edition, The Pentagon Papers, Vol. IV. pp. 114-123. For the present we offer the following corrections of the Foley-Ruderman statement.

JASON AND THE VIETNAM WAR

Professors Foley and Ruderman implied that Jason did Vietnam war research only once, in 1966. In fact Jason shifted to Vietnam research in 1964 when "increased Government attention to such problems as counterinsurgency, insurrection, and infiltration led to the suggestion that Jason members might be able to provide fresh insights..." (IDA Annual Report, 1966, p. 15). Official IDA reports state that in 1967 "Jason continued to work on technical problems of counterinsurgency, warfare and system studies with relevance to Vietnam." The Vietnam War was a major concern of Jason for at least four years, probably longer,

and perhaps to this day.

JASON "CONDEMNATION" OF THE BOMBING

Professors Foley and Ruderman imply that the major work of Jason in 1966 was a condemnation of the bombing of North Vietnam, and that this was done for humanitarian reasons. A crucial correction is in order,

In 1966, Jason scientists did a cold-blooded costbenefit analysis of the effectiveness of U.S. Bombing of North Vietnam. They were led to reject the bombing strategy because, in their words, "we have not discovered any basis for concluding that the indirect punitive effects of the bombing will prove decisive" in destroying the North Vietnamese will to resist (Pentagon Papers, Gravel edition, Vol. IV, p. 117).

So they developed something more effective. At Defense Secretary McNamara's behest. Jason's 47 scientists met in June for ten days of high-level briefings by Pentagon, CIA, State Department and White House officials, then split into four sub-groups to work "from a technical (not a political) point of view" throughout the summer. What they devised was an ingenious combination of heinous weapons: Gravel mines, "button bomblets," SADEYE/BLU-26B clusters, "explosively produced flechettes," and the latest electronic and technological developments-sensors and acoustic sensor monitor to "win" the war. Jason work was thus seminal in the development of the Electronic Battlefield, the Pentagon strategy for killing Asians at a distance without U.S. casualties (Pentagon Papers, Gravel edition, Vol. IV, p. 115).

THE JASON COLLECTIVE

Professors Foley and Ruderman insist that Jason members "work as individuals: there are no collective Jason papers..." This is ingenious. The 1066 electronic battlefield project was clearly collective. In fact, IDA annual reports particularly stress the importance of Jason's summer meetings, at which members come together to trade ideas. Available minutes of one such meeting that of Jason's "Thailand Study Group," which took place in June and July 1967, at Falmouth, Massachusetts, bear this out. The Falmouth meeting saw social and physical scientists and government officials address themselves collectively to the problem of improving counterinsurgency in Thailand. It was there that the noted Cal Tech physicist

Murray Gell-Mann suggested ascertaining "what effect increasing police density, of ear cutting, or other negatives have on villager attitudes" (The Student Mobilizer, Vol. 3, No. 4, April 2, 1970).

AUTONOMY OF JASON MEMBERS

Jason's two defenders protest that "members invent or choose their own problems... There is no pressure to work on particular subjects." Yet one column later they cite the Pentagon Papers to the effect that Jason members were "obligated" to develop the electronic battlefield. They thus undermine their own position by admitting, in effect, that the framework in which Jason scientists work dictated that the only way to oppose the bombing was to come up with a more lethal and convincing substitute. The Vietnamese are still paying for that "obligation."

In fact, the initiative for Jason projects often comes from the government. The electronic battlefield study was ordered by Secretary McNamara in April 1966. At the Falmouth meeting, it was General Maxwell Taylor who laid down the line. After outlining his need for information and analysis relevant to the Thai counterinsurgency effort, he concluded, "I hope you can find a way of setting up a structure in IDA which would draw in the services we need to get this job done" (The Student Mobilizer, April 2, 1970).

This then is the context in which the "independence" of Jason members must be understood.

THE QUESTION OF RESPONSIBILITY

Despite their bow to the principle of considering the consequences of one's work, Professor Foley and Ruderman defend the creators of the electronic battlefield solely by vouching for their motives. That their work was instrumental in creating a system that rains destruction from afar, is unable to distinguish combatant from civilian, and continues to kill by the thousands for political aims that Americans increasingly abhor, is conveniently ignored. That it did not bring an end to the war is treated as a kind of petty misjudgement on the part of the researchers. Why "condemn and shun" them for it? The answer is clear: because they inexcusably played with the lives of the Vietnamese people, and continue to lend Jason the weight of their intellectual powers. Professors Foley and Ruderman, meanwhile, devote their talents to providing this lethal organization with legitimacy, authority and hence longevity. One shudders to contemplate the future of their intentions.

If Jason members really considered the consequences of their actions, they would renounce Jason and, following the example of Daniel Ellsberg, throw their knowledge and experience into the fight to end this brutal war. Considering Jason's record, we think no less should be demanded of them.

The New York Regional Anti-War Faculty
and Student Group (NYRAWFAS)
c/o HDC
156 Fifth Avenue, Room 523
New York, N.Y. 10010

The IDA fact sheet was sent along the article to SESPA, where it is now on file for any interested friends.

Footnotes

- 1 Senator Barry Goldwater, Congressional Record, September 23, 1970, p. 38483
2. IDA Annual Report 1966, p.15 and "....during 1966 (and 1967)..."

- Jason continued work on technical problems of counterinsurgency warfare and system studies with reference to Viet Nam." IDA Annual Report, 1967, p. 19 and 1968. p.26.
3. Quoted from Fact 3. See also Fact 4:... the scientist informally agrees to make copies of the research report or thesis available as a matter of mutual professional interest and respect."
 - 4 Also see the enclosed letter of 26 February 1964, 3rd paragraph: "A research program leading to the doctorate ... could conceivably be of such quality as to give rise to new theories and approaches." Also paragraph 5 of the same letter: "We would... appreciate your kindness in placing the Advanced Technology Group (of the American Research Office) on your mailing list to receive periodic publications or other items relating to R(earch) and D(velopment) activities at the University (*italics added*).
 - 5 "In view of the fact that the document is confidential, I have sent it to the Low Memorial Library rather than directly to you."
 - 6 Letter of 26 February, 1964, 5th paragraph: "We are taking the liberty of forwarding to you on a monthly basis the Army Research and Development News Magazine." See also paragraph 7 and 8 of the same letter: "At any time you or your colleagues are in the Washington area, we would be more than pleased to have you visit our office for a discussion. This, we trust, would prove mutually advantageous. We trust ... our association will provide benefits both for the University and the Army Research Office." (*italics added*).
 - 7 By virtue of their position of Jason, Jason members have welcomed some of the most important scientific advisors of the government. The IDA Annual Report 1966 describes how Jason members "... rise to positions where their influence on national policy can be closely felt." and "as these men become more involved directly in government groups, the Jason projects refresh itself with new infusions and begin another cycle."
 - 8 See letter of 15 October 1965 and 27 October 1965.

PHYSICS TODAY, October 1972

PROTESTERS HARASS JASON PHYSICISTS

Members of the Jason group in the Institute for Defense Analyses have recently been the targets of considerable protest. In Paris this June, protesters forced the cancellation of a physics lecture by Murray Gell-Mann (who has been on sabbatical from Cal Tech.) The following month in Rome and in Corsica the same thing happened to Sidney Drell (who was on sabbatical from SLAC). Meanwhile in the US, five members of Jason at Columbia University have been the subject of many protest leaflets (which Jason members say contain lies and distortions), including some that were distributed at the homes of Henry Foley and Malvin Ruderman.

Jason is a brain trust of about 35 people, almost all of whom are physicists. As individuals under Jason auspices, they work on problems of national interest, which they themselves select. Most of their activity is in defense problems, but they also handle problems from the Department of Transportation, the Office of Science and Technology, and so on. In the Pentagon papers, a study group under Jason auspices is reported to have condemned the bombing of North Vietnam and to have recommended as an alternative an electronic anti-infiltration barrier. Some Jason members have been active in giving Congressional testimony on defense or civil technology - some agreeing and some disagreeing with the official government position. Drell and others have contributed to studies in support of the SALT agreement. Another Jason member, Richard Garwin, has been outspoken in his opposition to the American supersonic transport.

As reported in Science, when Gell-Mann appeared to give the third of a series of four lectures at the College de France in Paris, he was questioned by a group calling themselves the "Collectif Intersyndical Universitaire d'Orsay Vietnam-Laos-Cambodge". The group asked about his role in Jason and about the bombing of dikes. Gell-Mann is reported to have said he had come to discuss physics and not Indo-China; he then gave his planned lecture. The following day the demonstration occurred again, but this time, according to French newspaper accounts, Gell-Mann was escorted to the street by administrators from the college.

At the Institute Guglielmo Marconi at the University of Rome, in the beginning of July. Drell was to give a theoretical physics seminar. A group of demonstrators demanded that Drell denounce US policy in Vietnam and discuss and denounce his role in Jason. Drell refused, but for ten minutes he discussed Jason and giving advice to the government; after that the demonstrators left and Drell began his physics lecture. About 15 minutes later a larger group, employing a bullhorn, returned and protested much more intensively; so Drell simply gathered up his papers and left.

Three weeks later Drell and two other physicists were to lecture on quantum electrodynamics at the summer school of the Institut d'Etudes Scientifiques de Cargese in Corsica. It was the last week of a four-week summer school, which was attended by 25-30 students plus faculty. Again

Drell was asked to denounce his participation in Jason and to condemn publicly "American war crimes". Drell refused, offering instead to discuss Jason with the students any time after giving his first physics lecture. This offer was rejected, and then Drell asked those who wanted him to start lecturing to stand. Only about five students rose, and Maurice Levy, director of the institute, said that if Drell could not talk the school would terminate. Levy then gave the students until noon the next day to find a way to let Drell give his physics lectures. Efforts to resolve the conflict failed and the school ended a week early.

At Columbia a campaign against the Jason group is being conducted by the New York SESPA group, according to Foley. Since March, every Wednesday the group has been picketing the front door of the Pupin physics building and handing out literature. Foley told us that at the end of April, when many US campuses were in turmoil, the SESPA group, together with a group of faculty members from other New York colleges, occupied Pupin for four days. Things then quieted down. In June Ruderman's apartment house in Greenwich Village was picketed by demonstrators who handed out literature about his involvement in Jason. In August demonstrators held a 24-hour vigil at Foley's apartment house in Manhattan as a result, he says, he received a couple of poison-pen letters. The other Columbia members of Jason, Norman Christ, Garwin and Leon Lederman, do not live in Manhattan. Foley says the object of the SESPA action is to force the Jason members to resign.

PHYSICS TODAY, April 1973

PROTESTORS VS JASON

Your October issue (page 62) contained an article entitled "Protesters Harass Jason Physicists". While accurately portraying the "harassment" to which Jason members were subjected, this article does not explain why they were "harassed". The reason, however, is simple: the Jason division, in at least two known cases, has played an inventive and active role in advising the Pentagon in its conduct of the Vietnam war and in its investigation of counterinsurgency techniques (see for example, "Pentagon Papers," Gravel Edition, Volume IV, page 115; "Hearings before the Electronic Battlefield Subcommittee of the Preparedness Investigation Subcommittee of the Committee on Armed Services, United States Senate," page 4; "The Student Mobilizer," Volume 3, no 4, April 2, 1970; "New York Review of Books," 19 November 1970).

Those who have "harassed" Jason physicists have sometimes been accused of disseminating "lies." If there has been any misrepresentation of the details of Jason activity by protest groups, we strongly urge Jason members to correct such misrepresentation by making public all their research. One should also recall that before the publication of the "Pentagon Papers" some Jason members, when questioned, would not even admit that Jason had worked on Vietnam. Likewise, it is quite possible that Jason is only the visible part of a larger iceberg: it is likely that many other scientists have collaborated on the war in Vietnam but that their activity has not yet been revealed to the public.

At the same time that some Jason members have called the "allegations" of protesters "lies", they have also felt it necessary to defend themselves further. Note that self-defense has never been necessary for such Jason members as John Wheeler or Eugene Wigner, both of whom are confident in the justice of American policy and proud of the role they have played in forming it and in facilitating its implementation. They, at least, are consistent. But many Jason members (for example Freeman Dyson, Murray Gell-Mann, Sidney Drell, etc...) have advanced one or another of the following arguments:

- their participation in Jason should not be condemned, because most of Jason activity, and/or their own work in Jason, is unrelated to the war in Vietnam but deals with such projects as studies in support of the SALT agreement.
- their participation in Jason should not be condemned because they were "as citizens," outspoken opponents of the war.
- their participation in Jason should not be condemned because they were opposed to the war and hoped, from within Jason, to influence American policy.

Before showing why these arguments are, in our opinion, irrelevant, we would like to point out that Jason members defending themselves on Vietnam usually sound as abstract and as technical as if they were discussing a

scientific question; they never even mention what seems to us the essential aspect, namely the suffering and death of Vietnamese men and women; the electronic anti-infiltration barrier recommended by Jason was to consist among other things of "10 000 SADEYE-BLU-26B (antipersonnel pellet bombs) per month." ¹

With respect to the first argument: We do not think that the American government has opposite policies, a good one about the nuclear disarmament and a bad one about Vietnam; for us, they are not contradictory. It is difficult to see in what way Jason's role in reaching the SALT agreement is an answer to the question of the responsibility of Jason in the war in Vietnam. Assuming for the moment that the SALT agreement is commendable, of what use has the limitation of nuclear weapons been for the Vietnamese upon which practically every other weapon in the US arsenal has been used ?

With respect to the second argument: The opinions that Jason members held or now hold about the war in Vietnam seem rather irrelevant in the following context. In 1966 Jason was asked by the Pentagon to study "technical possibilities in relation to our military operations in Vietnam."² Jason did not respond by urging the Pentagon to stop "military operations" but recommended instead the construction of the electronic anti-infiltration barrier.

With respect to the third argument: A simple question is in order. Do those who hoped to influence American policy from within believe that they succeeded ? Do they feel that the Indochinese people should be grateful to them that it was only "7 550 800 tons of bombs, rockets, missiles, etc.... (that) were dropped by US aviation on Indochina between February 1965 and August 1972 ?" ³ Or that it was only "one out every 35 inhabitants of Indochina who has been killed, one out of every 15 wounded, one out of every 6 made a refuge ?" ⁴ The horrifying extent of the destruction of Indochina would seem to indicate that attempts to "influence" the Pentagon from "inside" were ineffective. Acknowledging this, why did not those who claim that they were against the war resign from Jason ? Or why did they not follow Daniel Ellsberg's example and make public the "Jason Papers ?" The attitude of those Jason members who, as one of them put it, believe that they have "helped to strengthen the voice of sanity inside the American government" is reminiscent of a standard a posteriori argument put forward by people who have collaborated with an oppressive regime in order "to save what little could be saved"; for instance, after World War II, some French collaborators of the Nazis tried to justify themselves by stressing that they had helped save some Jews.

Far from influencing Pentagon policy makers, Jason physicists have, consciously or not, been used by them; they have put their competence at the service of a policy that, in order to maintain the US domination over Third World countries has gone, in South East Asia, as far as a war of genocide. Some groups of scientists (among them, in the US, Science for Vietnam, SESPA, MAG, NARMIC, etc.) make another choice: they work against the "military-industrial-complex" from "outside".

References

1. "Pentagon Papers", Gravel Edition, Vol. IV, page 122.
2. Ref.1, page 115.
3. "International Herald Tribune," 5 September 1972.
4. E.W.P. Pfeiffer, press conference in Paris, June 1972.

- MARCELLO CINI
University of Rome
- GIANFAUSTO DELL'ANTONIO
University of Naples
- MICHEL LE BELLAC
University of Nice
- JEAN-MARC LEVY-LEBLOND
University of Paris
- DANIEL SCHIFF
University of Paris (Orsay)
- JACQUES TREINER
University of Paris (Orsay)

JASON MEMBERS COMMENT: The letter of Marcello Cini and others is a more reasoned criticism of Jason activities than we have recently seen, and deserves a reasoned answer. I speak only for myself and not for any other Jason members. My name came into public view on a nonsecret list of titles of documents, where I appeared as one of the authors of a paper entitled "Use of Tactical Nuclear Weapons in South-East Asia." or words to that effect. It is true that I helped write this paper under Jason auspices, and it is possible that it may have had some slight influence upon US policy in Vietnam. The question is whether I am to feel ashamed or proud of what I have done. I am glad to state publicly that I am proud of it. If my work had no effect on government policy, I can have done no great harm. If my work had some effect, I can be proud to have helped to avert a human tragedy far greater even than the one we have witnessed.

FREEMAN J. DYSON
The Institute for Advanced Study
Princeton, New Jersey

I do not understand how the authors of the letter above can possibly know my views on the relationship of a scientist to his government, the Vietnam conflict, SALT, or anything else, because colleagues of yours demanded of me that I denounce the US and its policy as well as my supposed participation before being permitted to lecture. Furthermore, not only were my

offers to arrange a discussion of the above issues following my scheduled physics lectures flatly rejected by my confronters, but they insisted that I accept their political inquisition and give responses that would satisfy them as a precondition to lecturing. I refused and was therefore not permitted to lecture.

In general I am quite willing to discuss freely my views on the existence of Jason and the relationship between a scientist and his government and society - and I have done so on a number of occasions. In fact, shortly after the disruptions mentioned above, I participated in a general discussion of these issues at CERN at which time I advanced none of the three arguments in defense of Jason that were stated in the latter above.

I consider attempts by small groups to demand political and moral purification as conditions for scientific dialogue to be dangerous precedents and not mere "harassments" as defended and rationalized in the letter above.

SIDNEY D. DRELL
Stanford Linear Accelerator Center

SCIENCE, 2 February 1973

JASON DIVISION: DEFENSE CONSULTANTS WHO ARE ALSO PROFESSORS ATTACKED

Recent books and commentaries on the Kennedy years have tended to illustrate the point that even the best and the brightest, in one best-selling author's phrase, of the young President's advisers were victims of fatal shortcomings - described as arrogance, amorality, or naiveté, depending on the critic. But in all the stories the tragic flaw bears the same name: Vietnam. If these advisers have an equivalent in the science community, it is probably the Jason Division, the 40-odd leading scientists-including some Nobel laureates-who in 1959 and 1960 banded together to work on national security matters in the summertime under the aegis of the Institute for Defense Analyses (IDA).

The Jason, as they are known, who continue to meet every summer, are not yet the target of revisionist historians, but they have become the targets of the radical left, who attacked their role in the mid-1960's, in the eternal quagmire, Vietnam. Chapters of Scientists and Engineers for Social and Political Action (SESPA) at Berkeley and Columbia have confronted Jason members. The left in Europe, principally the Collectif Intersyndicale Universitaire d'Orsay Vietnam-Laos-Cambodge (CIU), , confronted several Jason members last summer when they gave guest lectures at Paris, Rome, Corsica, Trieste, and even at CERN (Centre Européen de Recherches Nucléaires) in Switzerland.

* * * * *

The radicals question whether any military work is a legitimate subject of study. One French radical with CIU, Daniel Schiff, has cited Noam Chomsky to make his point to the Americans: "By entering into the area of argument and counterargument, of technical feasibility and tactics, of footnotes and citations, by accepting the presumption of legitimacy on certain issues, one has already lost one's humanity."

* * * * *

What is Jason ? IDA guards the membership list so closely that its full composition is not known. Most of its reports are classified and therefore members' positions on issues are also unknown. But despite these elusive aspects, some Jason members interviewed talked about the group's workings.

Unlike most consultants, Jason's contract continuation does not depend on the outcome of any given study. Advanced Research Projects Agency (ARPA) gives IDA an annual sum for Jason, which in 1965 was about \$ 520,000. Individual Jasons are paid different amounts, from \$ 100 to \$ 200 per day; fees are adjusted according to the pay scales of the universities from which members are drawn.

Members gather for 6 or 7 weeks each summer. Through Jason they have easy access to briefings from people at any level in the Department of Defense (DOD). They can read some (but not all) classified literature.

Projects are determined at the outset of each summer by a type of military supermarket, in which officers brief Jasons on the apples and oranges in their arsenal - and the Jasons, individually or in groups, decide which items to study. Because of this volunteer, take-as-you-go process, Jasons say there are no "Jason positions" as such on issues.

"Jason's chief role is in shooting things down", says one member. Others confirmed this. "Most people in Jason are not enthusiasts for increased armaments, or escalation in strategic weapons". If this is in fact so, Jason differs from most federal science advisory groups which are often asked to rubber-stamp predetermined policy.

* * * * *

Trying to explain why he was confronted last summer at Rome and Corsica by Italian and French students, Jason Sidney Drell of the Stanford Linear Accelerator Center says, "The Europeans don't have this. They think once you work for the government there you've sold your soul to the devil". At Corsica, the students had leafleted: "There can no artificial separation between a scientist's work in "pure" science and his contribution to activities related to the military".

* * * * *

Jason originated during Project 137, a 1958 conference involving economist Oskar Morganstern, and physicists Eugene P. Wigner and John Wheeler, who invited younger physicists along to familiarize themselves with military technical problems. Their concern was that the only top-level scientific inputs were coming from an older generation of scientists, many of whom worked on the Manhattan Project - I.I. Rabi, Jerrold Zacharias, G. Kistiakowsky, E.O. Lawrence, E. Teller, and other "old boys". With the Missile Gap, let alone the Cold War, threatening, the country seemed to need the best young scientists.

At Los Alamos in 1959, some of the younger boys - many of them protégés of the older generation - gathered to discuss forming a group: Marvin L. Goldberger, now chairman of the physics department at Princeton; Kenneth Watson, of the University of California at Berkeley; Keith Bruechner, of U.C. at San Diego; Charles H. Townes, then with IDA; and Marvin Stern, "the real inventor of Jason".

It was agreed that a group would form under IDA auspices and the defense bureaucracy coughed up Sunrise as the title. Goldberger recalls that they thought Sunrise sounded a little silly and accepted his wife's suggestion to call it Jason.

Jason originated as an enabling mechanism to keep younger physicists in touch with defense problems, but it rapidly evolved into a club. "We were all bright young men together; we were all precocious 3^o years ago," recalls Freeman Dyson of the Institute for Advanced Study at Princeton, once J.R. Oppenheimer's demesne. He recalls having spent the war in England and says

he learned "how" to talk to military officers then.

Many of the new Jason members were protégés of the "greats" of the era. Goldberger, with only a B.S. degree, worked on the Manhattan project, and, after this extraordinary education in physics, returned to the University of Chicago to get his Ph.D. under Enrico Fermi. At the time, he helped Chicago hire 1969 Nobelist Murray Gell-Mann, who was at M.I.T. finishing his Ph.D. Harold Lewis, a Jason cofounder and the current chairman, came to Chicago to be interviewed for a job; there he met Goldberger. Fermi allegedly termed Richard Garwin, whom he met as a graduate student, "the only true genius I have ever met." This high praise, coming from one of the most imposing figures in 20th-century physics, doubtless aided Garwin's entry to the group. And so on.

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"Good geniuses" is how one left-wing critic describes the Jasons he has met.

"These guys take a lot of satisfaction in knowing they're going to be consulted over whether civilization will be destroyed or not.... It's a hubris, or arrogance, which says "We are really bright guys and we can keep the country from doing ridiculous things".

"So, they say to themselves, "We will go along with little things, like the Vietnam war, which we can't fight anyway, and save our guns for the big things, like ABM." And they're totally unaware that they're just being used by some little, puddin'-headed guy in the Pentagon."

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Drell recalls the headiness he felt when he first started flying to Washington to consult on national security ("Now there's nothing I loathe more than hopping on that plane"). Others are nostalgic about the early years. They point out that the now-giant army of in-house technical people in DOD, the directorate of the Defense Department's research and engineering, hardly existed then and that other consultants, ARPA, and the President's Science Advisory Committee (PSAC), for example, were enjoying a heyday. Clearly also, the shutting of Jason members from campus to capital, and breezy, shirt-sleeved summer sessions were a close mime of the style of the Kennedy Administration.

Technically, Jason's founding coincided with the introduction of the intercontinental ballistic missile (ICBM) as the central factor in the arms race. According to some Jasons interviewed, as soon as the ICBM came in, the antiballistic missile (ABM), was suggested as a U.S. defense against a massive nuclear attack from Russia. In 1960 the Army sought 400 million, its first production funds, for ABM, in its early guise as Nike-Zeus. McNamara opposed ABM, while Jason as a group made technical studies of long-range radar detection and decoy discrimination possibilities, which made ABM seem unfeasible.

In addition to having its ABM views coincide with those of the Secretary of Defense, Jason had allies in the White House. Some fundamental questions about nuclear blast detection in the atmosphere and upper atmosphere had to be answered before Kennedy, with the urging of his science adviser, Jerome B. Wiesner, could go ahead with a nuclear test ban treaty. Also, important to it were the changing, increasingly convoluted versions of and rationales for the ABM.

An added element of the early days was that the rest of the year the Jason physicists were competing with each other for recognition through publications and for key academic posts. The national security blanket Jason offered during the summers, however, enabled them to be friends too. "They weren't really competing with each other in Jason the way they would outside. Outside they would compete ferociously."

Finally, Jason became a club in the purely social sense. While the physicists rolled up their shirt sleeves with generals at such scenic spots as La Jolla, California; Woods Hole or Falmouth on Cape Cod; or the Bowdoin College campus in Maine, their wives and children would be establishing themselves on the local beach for the summer. "It has to be near a beach," explained one member a little sheepishly. On one occasion in the early 1960's some of the wives collaborated in producing a supper-club series of skits titled, "Review from the Bridge," featuring a mock strip-tease number to the tune of a song. "My Heart Belongs to IDA."

Enter, the Vietnam war. Many Jasons describe it as a bomb: badly conceived, clumsily carried out, and too long. "Ninety percent of us are doves," said one liberal member, but some Jasons believe that the war is a just one in a just cause.

Many Jasons to this day, however, regard the threat of nuclear war and the strategic arms race as the most important issues facing the country - not Vietnam. "The possibility of nuclear warfare is very great at any time," said Foley. MacDonald, who was connected with Jason and vice president of IDA during the mid-1960's, was asked what he would do if he felt his government was doing something evil. "I would quit." Does he think the Vietnam war is evil? "I think it was not in the best interests of the United States. The war is not proper...."

* * * * *

Vietnam is not only the focus of the current radical attacks on Jason, s but also the turning point in Jason's collective history. Several of those interviewed suggested that Jason's recent decline of influence with the generals could be due to its "track record" on Vietnam: support of McNamara and the Office of the Secretary of Defense against the Joint Chiefs of Staff and other military departments on the electronic barrier and the bombing. But one liberal member went even farther: "Obviously we blew it," he admitted. "When McNamara came to us in 1966 we should have told him to shove it and made a public statement."

IDA's annual report for 1964 indicates that the government's interest in "counterinsurgency, insurrection, and infiltration" led Jason to look at problems "not entirely in the realm of physical science." Apparently this

is a reference to a small study group including Gell-Mann which looked into Vietnam-related problems. Jason members say that there was no Vietnam work when they met at Woods Hole in 1965.

But, in 1966, some Jasons and other intellectuals, principally in Cambridge, decided to do something on Vietnam. Roger Fisher of the Harvard Law School (and later inventor of the television program "The Advocates") wrote John McNaughton of the Office of the Secretary of Defense in January suggesting an electronic barrier. Meanwhile a group of Harvard and M.I.T. scientists suggested to McNamara that they establish a general technical working group on Vietnam and received his blessing.

The result was an intensive 10 days of briefings with McNaughton, Maxwell Taylor, former chairman of the Joint Chiefs of Staff, John Foster, and others, and, for the intellectuals, according to one, "everybody and his grandfather." They were held at the Dana Hall School for Girls in Wellesley, Massachusetts. According to the Pentagon Papers, IDA supplemented the project with 20 extra staff members and the group split into several study sections for the summer.

The main Jason group met at the University of California at Santa Barbara in July. About seven or eight members studied the barrier proposal in very great detail. Principals were Henry W. Kendall of M.I.T., Frederick Zachariassen of the California Institute of Technology, William A. Nierenberg of Scripps Institution of Oceanography, Gell-Mann, and Lewis. Others, including MacDonald and Garwin and some whose names, of course, are not known, say they "floated" in and out of the study sessions and participated, but not in a systematic manner. A principal from IDA was Seymour Deitchman.

The idea was to create a cordon of technological weapons to be placed along a 20- by 100-kilometer strip of the southern demilitarized zone and the Laos-North Vietnamese border, to absolutely close those borders to infiltration. Anyone-presumably soldiers and trucks-trying to get through would be stopped -i.e.- killed, maimed, or blown up, by a combination, according to the Pentagon Papers quotes from the report, of gravel mines, Sadeye/Blu-26 bomb clusters, and strike aircraft patrolling the area receiving sensor signals. Attempts to cross would be detected by a combination of acoustic sensors, seismometers, and button bomblets the size of aspirin tablets, which make a noise loud enough to trigger other, cruder sensors. The barrier could be extended geographically by a manned version of the fence, and IDA's publications bibliography shows Matthew Sands as author of a paper titled "The manned barrier systems: A preliminary study." Richard Blankenbecler the same year authored a paper apparently related to the barrier titled, "Explosively produced flechettes."

Those familiar with the project insist that it was viewed as a means of undercutting the military's justification that the bombing campaign would halt infiltration. They say, but cannot prove, that they sought to have the cordon placed in uninhabited areas where there were no civilians.

The group also wrote that the North Vietnamese would find ways to penetrate the barrier, and new technologies would have to be installed to thwart them. Thus, they envisioned a "dynamic battle of the barrier." The cost, they say, in military terms was "not great, perhaps \$800 million to \$1 billion per year."

In any event, McNamara enthusiastically adopted the barrier notion after a series of lunches with some of the scientists and a 6 September trip to Zacharias's summer home on Cape Cod. One familiar with that occasion says that John Foster, director of Defense Research and Engineering, was there, as well as McNaughton, Richard Goodwin, and Yarmolinsky. For the scientists, there was Kistiakowsky, George Rathjens, Carl Kaysen, MacDonald, Wiesner, and Zacharias. McNamara arrived in his own Air Force plane and was offered a drink; they spread out large maps of Southeast Asia on the coffee table and floor, while the scientists did the briefing.

"Imagine them, marking out on these top-secret maps exactly where this thing would go, while dogs and children were running through the house from the beach. It must have been incredible."

McNamara managed to get approval for his project, according to the Pentagon Papers, but as a result of infighting among the military and the Office of the Secretary of Defense on implementation, it was only installed on a piecemeal basis.

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It is hard to describe the new left's anathema for the Jason barrier proposal and its sequel, the electronic battlefield. In the opinion of Fred Bramfman, director of Project Air War, a Washington, D.C., research group that collects data on the effects of the bombing and new technology from Asian refugees, the barrier is the logical extension of the air war, where soldiers kill by merely pressing buttons in a remote location never viewing these actions.

Bramfman charges that the devices Jason suggested have been "indiscriminately sewn in Southern Laos, southern portions of North Vietnam, and portions of Cambodia..... There are 250,000 civilians living, for example, in the Pathet Lao controlled southern Laos."

"I consider the electronic battlefield a clear example of war crimes in Indochina. A personnel bomb cannot distinguish between soldiers or civilians.

..... The basis of international law relating to war is that participants distinguish between military and civilian targets."

Asked if he thinks the Jason group is responsible for the battlefield's uses, Bramfman said: "I don't doubt that the Jason people have had a more beneficial effect than some others..... But that means they are lesser, rather than greater, war criminals. They are dramatic examples of how it is possible to be a moderate, well meaning, decent war criminal."

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Meanwhile, in Wellesley and Cambridge, various people worked on an analysis of the bombing, which, as quoted in the Pentagon Papers, pretty thoroughly condemned it and reinforced McNamara's growing doubts about its efficacy. The Pentagon Papers say that the bombing report was a Jason prod-

uct, but some of those involved say it was IDA's, not Jason's. Among the participants were E. Bright Wilson, professor of chemistry at Harvard; Zacharias; Carl Kaysen, director of the Institute of Advanced Study at Princeton; George Rathjens, professor of political science at M.I.T.; Wiesner; and others. I.I. Rabi and Kistiakowsky apparently also had roles as overseers. According to IDA annual reports, Kistiakowsky and Wiesner both have been connected with Jason as senior advisers, not as members.

Jason was entwined in other Vietnam work in 1966. There was a study of manpower and logistics referred to in the Pentagon Papers. IDA reports list the 1967 publication of a classified paper by Wallace Bode, Rathjens, and others, titled, "A Study of data related to Vietcong/North Vietnamese Army logistics and manpower."

"Tactical weapons in Southeast Asia" was the title of another paper compiled, according to IDA's bibliography, by Dyson, Stephen Weinberg of M.I.T., Robert Gomer and S.C.Wright, both at Chicago, Dyson declined to discuss the classified content of the paper, as did other Jasons. But in response to inquiries they would laugh, make remarks about Dyson's dovish views, and otherwise hint at what the paper says. Finally one blurted out, breaking security regulations, as well as the suspense: "That paper gives all the reasons why you wouldn't use nuclear weapons in Vietnam."

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The New York SESPA chapter has demonstrated every Wednesday noon against Jason members' collaboration with "the enemy"-the DOD, that is -on Vietnam. But the Jasons there at Columbia have had other tactics - alleged threatening phone calls and hate mail - used against them. One leaflet circulated by SESPA recalled a Hastings-on-Hudson dinner party before the 1963 test ban treaty at which Garwin allegedly talking about nuclear testing and strontium-90 in milk, said, " 'Well, what's a few dead babies or mothers.'

....One of the guests....stood up and said to Garwin, 'If I were a mother I'd stand you up against a wall and shoot your b-----off.' "Garwin issued a rebuttal denying most of the story, saying he had publicly campaigned for the test ban treaty. In reply, SESPA issued another version of the story, this time quoting Garwin at the dinner party as having compared the babies and mothers to the Jews in Germany.

"It's impossible to resign under this kind of tactic," says Malvin Ruderman of Columbia's physics department. And Foley says, "Nothing could be better designed to draw us together."

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There is some contradiction about Jason's 1967 consulting on the war. Some of the above-mentioned IDA research papers appear to have been pub-

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lished in 1967 and it is clear when the research terminated. The Pentagon Papers also discuss at length a 1967 study of the bombing, saying "IDA's Jason division called together many of the people who had participated in the 1966 summer study." It calls the 1967 bombing analysis, submitted to McNamara in December and key to McNamara's subsequent advocacy of a bombing halt, "probably the most categorical rejection of bombing as a tool of our policy in Southeast Asia to be made before or since by an official or semi-official group."

But many Jasons interviewed said this study, like the 1966 one, was not done under Jason auspices, but by IDA. Jasons sat on a steering committee, however, consisting of Goldberger, Gell-Mann, Lewis, Yarmolinsky, and Kistia-kowsky (the latter two not Jason members).

The actual work was headed by MacDonald, then vice president of IDA, and two IDA staffers, Louis Blair and Paul Schweitzer. According to one account, these three individuals, in effect, locked themselves up in IDA's Arlington, Virginia, headquarters from September to December and generated a three-volume report which a current Jason adviser calls "far and away the best work ever compiled on the subject." The Pentagon Papers credits this particular work, along with a CIA study named SEACABIN, as having clinched McNamara's antibombing stance.

There are indications, too, that when Harry MacPherson, President Johnson's speech writer and confidant, was told days before Johnson's historic March 1968 broadcast, to prepare a speech for him condemning the bombing, this IDA report was used as one of his key reference materials.

Jason members differ on whether any Vietnam work has been done since 1966-1967. The Student Mobilizer at one time published excerpts of a Jason meeting held by Gell-Mann in 1967 to consider forming a social science section of Jason, principally to work in Thailand. Another Jason member denies that these plans ever were implemented. As to other studies, some Jason members say there has been "no" more war work; others say there "may" have been some.

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SESPA regards Jason's Vietnam work as immoral complicity in genocide and calls for Jason's collective resignation. Somewhat feebly many Jasons respond by stressing their opposition to the war in the mid-1960's. But one member, recalling a briefing on it Jason requested from Maxwell Taylor, was asked if any of the Jasons in the audience had expressed these feelings to Taylor. "No", he replied. "You don't confront generals." Another member recalls that in all their summer meetings, Jason as a group had never even taken a vote on the war. Another, who hasn't attended meetings since 1967, says, "We blew it."

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On Vietnam, some Jasons say they tried to deescalate the war and failed. Likewise on the ABM, some claim that they were a force for restraint; yet both the Nixon and Johnson administrations have pressed for ABM development. One Jason, trying to explain these failures, said, "You see, we really have very little influence."

Some say a changing DOD is responsible for Jason's apparent diminished influence. Garwin says, "Jason is now less influential because the DOD is less easy to influence. Now, honest technical judgments have less to do with the biggest decisions that are made." Dyson, reflecting on his 30-year acquaintance with military officers, says, "The military has changed a great deal. They've become disenchanted with technology as a result of Vietnam....."

The important decisions the government is faced with are not as technical as they used to be."

Certainly the technical problems Jason has dealt with have changed. Drell says that today "the big technical problems are system problems," as opposed to the pure physics questions which were raised about ABM.

As the ABM proposals shifted in the middle 1960's from a "thick" system against a massive Russian attack to a "thin" system protecting our citiesour cities from a smaller scale. Chinese attack, the technical questions changed; meanwhile ABM-related technologies were advancing rapidly. Some Jasons indicate that the newer versions of ABM appeared no more feasible than the early ones, but that Jason and others who said so lost their in-house DOD fight when McNamara, in an 18 September 1967 speech, turned around and announced a decision to proceed anyway. Certainly after that, several scientists who had argued about ABM behind closed doors in Jason, PSAC, and in other federal councils, started coming out of the military woodwork to try, virtually for the first time, to lobby in public against these systems.

Today, many of the Jasons are also proud of having studied conversion of bomber to missile defenses in connection with the arms limitations (SALT) talks, and antisubmarine warfare, which they say are the next key step in arms limitation.

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Vietnam is not the only albatross the radical left seeks to hang around Jason's neck. The new Berkeley SESPA book "Science Against the People" says: "Most of the Jasons we spoke with would rather talk, and boast of their contributions toward peace on arms control..... Some have pointed with pride to the nuclear test ban treaty and the recent SALT agreement..... It should just be noted that the arms race has yet to be stopped and the Nixon policy—peace through strength—calls for new escalations in the technology of strategic armaments; and we may expect scientists of the Jason caliber have been and will be instrumental in helping the Pentagon get the 'best' new weaponry that this country can produce."

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Like IDA and other defense-dependent groups, Jason is trying to weave nondefense work into its routine. Last year Foley and Ruderman worked on a study of the stratospheric effects of the supersonic transport plane. There have been briefings, supermarket style, from officials in the Department of Housing and Urban Development, the Postal Service, the Office of Civil Defense, and elsewhere.

But after talking enthusiastically about this work, some Jasons admit they really aren't communicating with these new clients. "In civilian areas, no one has ever had control of a larger project. In DOD, you can sit back and tell someone how to spend \$ 200 million to find the answer to his problem. But in these agencies, the guy you're talking to has never seen anything close to \$ 200 million." Indeed, it is hard to ascertain what contribution theoretical physics can make to the problems of the Post Office.

Small wonder then, that a number of Jasons suggest that the group may cut its link to IDA, which has its own problems, and realign with Stanford Research Institute. Some do not rule out the possibility that Jason will simply disband. Others will only say Jason's role is "changing."

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Should they resign from DOD ? The official who earlier labeled the Jason "hubris", or arrogance, thinks they're in a vise. "At this point you're asking them to admit to error—that several years of their lives were spent being manipulated by Johnson and Nixon." An entirely different view came in the reaction of one long-term Democratic congressional speech writer who exclaimed: "God. If Nixon loses the scientists what are we going to do when there's another Sputnik ?"

The radicals have two prescriptions for Jason. One is that they collectively resign in a gesture of protest. The other, which is Bramfman's formula, is that they remain in DOD and "resist" it from within by leaking documents.

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So the question is whether this group (which Hans Bethe allegedly termed a Who's Who of Theoretical Physics) ever did or can presently achieve what it set out to do—exert an influence on the country's military and military-political history. In the wave of reprisal from the radical left, at least, it is clear that Jason, like the Jason of mythology, has sown a field with dragon's teeth which have sprung up into a host of hostile soldiers.

Science, 4 May 1973

JASON AND THE NATIONAL DEFENSE

The report on the defense consulting group Jason by Deborah Shapley (News and Comment, 2 Feb., p.459) mentions the assertion by critics of the Kennedy Administration that those who aided the American war effort in Vietnam were guilty of "arrogance, amorality, or naiveté". It is a fact, however, that this is a democracy and that actions by the U.S. government are on behalf of a majority of the American people. It is not consistent to condemn those scientists who aid our national defense without condemning the majority of the U.S. population. In fact, the question could be raised as to the morality of those scientists who would attempt to thwart the will of the majority because of their peculiar position in the society. Is it right for a scientist to weaken the national defense by refusing to contribute his part to it, so long as this is a democracy?

Shapley states that "Jason originated during Project 137, a 1958 conference involving economist Oskar Morganstern, and physicists Eugene P. Wigner and John Wheeler, who invited younger physicists along to familiarize themselves with military technical problems." Eugene Wigner had nothing to do with originating Jason. He has many times contributed his efforts to the national defense, but he had taken almost no part in the activities of Jason.

There are two compelling reasons why university scientists should act as consultants on national defense for the U.S. government. (i) Such consulting introduces the thinking of university people into government planning. (ii) Without the contribution of American scientists to the development of new weapons, the United States would fall far behind predatory nations who would like to expand their borders and impose their will on others.

The News and Comment report pictures members of Jason as being continually apologetic for their contributions to national defense. I hope they are not, because their efforts are essential if the United States is to remain a government of free people.

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Florida, Gainesville 32601

The Jason group itself did not originate during Project 137. But some young physicists who participated in the project formalized their relations with the Department of Defense, as the Jason group, the following year.—D.S.

We applaud the attention that Science has given to the Jason Division of IDA (Institute for Defense Analysis). Having recently published our own extensive study on the subject (1), we would like to comment on the issues that are reported.

We do not believe that Jason scientists are any more immoral, amoral, arrogant, or naive than many other scientists in this country. They are distinguished only by having been given the opportunity to participate at the very highest levels of national policy-making; and their now-publicized con-

Science, 4 May 1973

tributions to the war in Vietnam have brought them into the spotlight. While Jason members' possible complicity in war crimes is a serious legal question, our major interest lies in seeing the broadest political implications in the whole Jason story.

One cannot view the Jason participants as simply neutral technical advisors. They work within a highly politicized context, defined by the objectives of the Department of Defense (DOD) and, more broadly, by the foreign policy of the Cold War. The Jason members, in accepting the secret and subservient nature of their advisory relationship to the DOD, have isolated themselves from any alternative political potential. Given this state of affairs, it would be foolish for Jason members to think that they as individuals could exert a politically liberalizing influence through their inside connections. ("You don't confront generals," was how one Jason member described their relations with the Pentagon brass during a briefing on Vietnam.)

Thus, the only option for Jasons who personally opposed the war in Indochina was to offer alternative technical solutions to the failing military campaign, solutions which were then utilized by the government, in fact, to prolong the war. This is the history of the automated battlefield, conceived by Jason in 1966.

Jason serves to oversee and correlate scientific research in many areas and to select for future exploitation those developments which might prove valuable to long-range military interests (2). Thus, when many concerned scientists bemoan the fact that so much of "pure" research ends up being applied to objectionable ends, we should understand that this is no accident, but a direct result of careful design. Furthermore, beyond its purely technical functions, Jason serves as an important ideological model for science in this country, since the prestige of such groups serves to legitimize the whole spectrum of scientists' involvement with the military.

Our basic criticism of Jason is that it is intrinsically antidemocratic. It helps to put more power into the hands of a centralized and secretive military-political-economic apparatus which already has monopolized too much of the power in this country and throughout the world. It is not enough, at this time, for Jason members to express their personal regrets over their past contributions to the Vietnam war. The most constructive action they can take is to publicly resign from Jason, and from any similar organizations, and to make public the full scope of Jason-type activities.

Charles Schwartz
 Martin Brown
 Scientists and Engineers for Social
 and Political Action, Box 4161,
 Berkeley, California 94704

References and Notes

1. Science Against the People (Berkeley SESPA, Berkeley, Calif., 1972)
2. The Report of the 1971 Jason Laser Summer Study (IDA Study S-391, Arlington, Va., 1971) is an example of this. Their figures show that 80 percent or more of the federal funds for laser development are in military areas, but we cannot learn more about this because volume 3 ("Unique military applications of lasers") of the Jason report is classified.

UNIVERSITE' PARIS VII

LABORATOIRE DE PHYSIQUE THEORIQUE ET HAUTES ENERGIES

Professor E.E. Salpeter
Laboratory of Nuclear Physics
Cornell University
Ithaca, N.Y. 14850, USA

Paris, 24/11/72

Dear Professor Salpeter,

I was rather surprised to learn that you belonged to the Jason Division at least up to 1970.

Indeed I remembered quite vividly your correspondance, nearly four years ago, with Hubert Reeves and myself, when you refused to attend our Nice Colloquium on Astrophysics and Fundamental Physics, because of French government embargo on arms shipment to Israel.

Of course, I am well aware that working within Jason does not necessarily mean working about the Vietnam war, and I understand that you have for a long time openly opposed the war.

Nevertheless, I do not see quite clearly how you could reconcile your work in such a military advising office, which has been directly involved in the Vietnam war (whatever were your own assignments within it), with various statements you made in your letters and which, I must say, had struck me very much at that time.

You "tended to become somewhat disillusioned about the quantitative amount that can be achieved" in "changing the wrong actions of one's government by working from within". You had "become more impressed by the results achieved by naive and simple protests". You felt that "a boycott of the U.S.A. by European scientists...might have been a good thing after all". Your "own intuitive impulse" was "for simple protest" also.

Independently of the reasons why you finally chose to stay within Jason for some time after these statements (I do not know whether, when, and how publicly you resigned from Jason), I think that you could at least understand, and perhaps agree with the "naive and simple protests" of many scientists (especially among the younger ones) against Jason members.

Sincerely yours.

Jean-Marc Lévy-Leblond

P.S.: I enclose copies of your letters, in case you don't have them in your films. Do you still hold ours ?

CORNELL UNIVERSITY
Laboratory of Nuclear Studies

December 8, 1972

Dr. Jean-Marc Lévy-Leblond
Laboratoire de Physique Théorique
et Hautes Energies
Université Paris VII
2, Place Jussieu
75 Paris VE
France

Dear Dr. Lévy-Leblond:

I was very glad to get your recent letter and, especially, the copies of my letters from 1969. I've been reminiscing about this period recently but had lost the correspondence (I also would love to have a copy of your letters from that exchange). On rereading my letters to you and Hubert, it occurs to me that I should spell out in more detail my philosophy on the meaning of "working from within a system".

Working for one's military establishment always presents a dilemma for a scientist devoted to peace: (a) Apart from any direct bad effect his own technical work may have, the mere fact of associating with a militarist group confers some indirect moral complicity, just as visiting another country (or failing to emigrate from one's own) does to a lesser extent. (b) On the other hand, a government and even a military establishment such as the U.S. Defense Department is not a monolithic organization, but contains different factions which represent different views. Under favorable circumstances one's leverage in strengthening one point of view can be enormously large when coupled with honest technological work. My main principle is that one cannot make decisions or judgements on principle alone, but in each historic period one must try to assess the relative importance of (a) versus (b). Let me illustrate with some periods I have known in the USA:

(1) In the 1950's I was involved enough with D.O.D. to have some perspective, but so "small a fish" that I can be fairly objective about the achievements: A powerful faction in the U.S. (some generals and their civilian allies) were trying to build up hysteria in the population and working towards initiating a "preventive war". At the beginning of that period I consider the probability was more than 50% of a full-scale third world war sometime during a twenty-year period. This was prevented, but not by "simple protest from without" nor by the concerted action of any citizen group. It was prevented, partly by the saner fraction of the politicians, and to a large part also by individual University scientists "working from within" and speaking out in public. It was not easy--each scientist was on his own against the "concerted political action" organized by Joe McCarthy. It seemed an unequal fight--each scientist spoke out, with technical "inside knowledge" and some political conviction, but always leaning over backwards to present both sides of each question. The McCarthyites, on the other hand, not only

Dr. Lévy Leblond

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December 8, 1972

had power but spoke out with fervor in simple terms, their principles were absolute and allowed no other side. And yet my elders (such as Bethe at my University) stood their ground and, somehow, their fair, patient, detailed, technical analysis allayed the hysteria fanned by the dogma of McCarthy and the generals. Young people often ask scornfully what positive good the "defense intellectuals" have achieved--the fact that the human race is still functioning today may be such an achievement!

(2) In the early 1960's the situation was less dramatic, but qualitatively similar. The technological battle on stable deterrents versus "first strike capability" was being fought by factions in the D.O.D. and I have no doubt that (b) outweighed (a) in this period.

(3) In 1965 to 1967 I had a particularly intense dilemma: Our atrocities in Viet Nam were building up and the indirect moral complicity of (a) weighed heavily on my mind. On the other hand, the proponents of preventive war ("at least a little one, only against China, for instance") were trying again with A.B.M. and a revival of the shelter program. I considered the fight against A.B.M. important and both (a) and (b) had a large numerical value.

(4) By the spring of 1968 the situation had again become clearcut: The Viet Nam situation had become even more unbearable, the proponents of A.B.M. had won and the climate inside DOD was now such that there was little hope of my influencing anything--(a) clearly outweighed (b) for me. I stopped going to Washington then and made my break with Jason and DOD early in 1969 (catalyzed in part by my correspondence with Hubert Reeves and with you).

To reminisce about the last four years: Being a typical diffident, liberal intellectual my own contributions to "simple protests" were rather feeble, but I helped organize during 1969-70 some courses at Cornell University on technology assessment and decision-making in Washington and the effect University-trained people can have on this. These courses were fairly popular in that academic year and the following one, but student apathy has unfortunately been increasing since about 1971. I always find it hard to assess my own effectiveness: I think I had a positive effect on at least a few young people here by retelling my experiences, dilemmas and mistakes, but one does not reach many people this way (even the news of my break with Jason and DOD is spreading through the scientific community rather slowly).

As regards the "simple" protests of radical student groups in the USA of a few years ago: Unfortunately they are no longer simple--various subgroups are so intent on their ideological struggle with each other, that they have forgotten what they had wanted for the country or the University. The lack of interest of most students is only partly apathy--in part it is disgust with the dogma, intolerance, half-truths, lies and intimidation used by some of the radical leaders.

Yours sincerely,

E. E. Salpeter

PRINCETON UNIVERSITY: Department of Physics

January 3, 1973

Dr. Peter Kleban
21, rue Doyen Gosse
38-La Tronche, FRANCE

Dear Dr. Kleban:

I am writing in response to your concern about involving yourself with FAS in the light of the presumed Jason association of some of our sponsors. I would like to answer your specific questions and, at the same time, make some general remarks on the whole subject as well as to correct some of the mistakes in the document "American Physicists and the War in Vietnam". A line by line analysis would take more time than I can devote but I should say that it is poorly written, illogical and wildly inaccurate in a number of places.

Now to your questions: 1. Were Drell, Glaser, Goldberger, Kistiakowski, Townes and York members of Jason? At some time during its 13 years history all of these men have been associated with Jason in one capacity or another. Only the first three named were technically members of the group, the latter three have served largely in an advisory capacity with very occasional involvement for short periods during summer studies. 2. Are they still members? The Jason group has decided against making its membership public so I cannot answer this question directly. I disagree with their decision on this and I will, below, tell you precisely my own status. You should feel free to write directly to the others. 3. Have these past activities (I presume you mean what you quaintly refer to as planning the war) been repudiated? Again, you'll have to ask the others this question but I'll tell you my own position shortly. In spite of the fact that I don't think your questions are very good ones I want to try to address the whole matter in as honest and straightforward a way as I can. I believe that Drell and Gell-Mann were wrong in principle to refuse to discuss these questions although in detail the circumstances may have warranted their reaction.

I should say that I have talked in detail to Charlie Schwartz and if I can find it will include his notes on this conversation. In addition, I gave an interview to Debbie Shapley of Science which may be published.

Dr. Peter Kleban

January 3, 1973

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I was one of the founders of Jason in 1959 and for seven years was the Chairman of the steering committee. I have not attended a Jason summer study (except perhaps for a visit of a day or two on two occasions) since the summer of 1967. I am currently called a senior advisor and have been such for a number of years (3-4?). The initial reason for my diminished association was my membership on the President's Science Advisory Committee -- January 1965 to June 1969. Since that time I have simply had other things to do which I gave priority to. But I have not nor do I intend to resign; I could well be fired for inactivity! I remain a firm supporter of the Jason programs of which I am aware. With regard to this I make the categorical statement that the Jason division as a group has had no repeat no involvement in the war in Southeast Asia since the fall of 1967. I simply don't know whether individuals who happen to be Jason members have had such involvement subsequently.

Let me turn now to Jason and the Vietnam war. First, the group of 47 scientists described as "Jason" in the Pentagon Papers and in your document were not the 30-odd Jason group plus 17 others. There were only 5-7 (I really can't remember how many) of the true Jason group involved in the 1966 study. None of the six people you noted signed the true Jason part of the report associated with the 1966 study. I, as Chairman of Jason, was involved to a certain extent, as was Kistiakowsky at a higher level. There is apparently a great deal of confusion on this point. The whole study was called a Jason study but in fact involved only a small fraction of actual Jason members. This small group was concerned with the barrier concept but was not the inventor of it. That "honor" goes to Roger Fisher of the Harvard Law School.

I have thought a good deal about my own involvement in the 1966 project. In retrospect I think the collection of 47 distinguished scientists should have taken a public stand in refusing to associate themselves in any way with the Vietnam war. It was, however, a very difficult thing to do. I, along with I would guess very close to all the rest of the people, were totally opposed to the war. My own revulsion over the war, I'm ashamed to say, dates only from the fall of 1965. But when approached by Secretary McNamara himself completely disillusioned by that time, and asked to help think of ways of stopping the bombing, the civilian casualties and the lowering of the temperature of the war, it was nearly impossible to refuse. I would like to say that the decision to become involved was taken only after an agonizing soul searching rejection of the route of a public renunciation, but it's not true. But we all believed at that time that the things we were working on would help to bring the war to a close. In this we were probably very naive. I hope you appreciate that I'm not trying to condone our involvement but I'm trying to give you a picture of the situation that existed when we actually made our decision. The issue didn't seem so obvious then as it does six and a half years later.

Dr. Peter Kleban

January 3, 1975

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The 1966 study had two main thrusts: 1. An analysis of the failure of the bombing campaign and 2. the anti-infiltration barrier. The first was the only serious critique to my knowledge carried out by impartial outside experts. As you know, it was a devastating criticism and served a valuable purpose. The barrier was thought of as a technique to obviate the necessity of the bombing in so far as the latter was directed against the flow of men and materiel. Jason was concerned with the systems aspects of its implementation and was not involved in the development of munitions in any way. The barrier was regarded as a "good" thing in two ways: 1. It replaced the wanton bombing of civilian targets by an attack on soldiers. 2. If successful in drastically slowing infiltration and re-supply it would make possible a rapid disengagement by U.S. ground forces, a lowering of the temperature of the whole war, perhaps a return to the civil war from whence it came. If the choice is between bombing North Vietnam or attacking the infiltration routes, I vote for the latter. I have never fully understood the particular outrage expressed about the barrier.

Now evidently we seriously underestimated the forces in this country who still wanted and thought possible a military victory in Vietnam. Thus in their view the barrier was an add on, not a substitute. I think that Mr. McNamara made the same mistake when he seized upon the idea. It's easy to share the mistakes of great men.

That's the story about the barrier and Jason's role in it. There was another Jason effort in the fall of 1967 also reported in the Pentagon Papers -- an analysis of the air war which is credited there with important influence on the decision ultimately taken to stop the bombing of the North. There is one other study from the summer of 1967 that a few of us were involved with that is still classified. It was concerned with strategies for disengagement from the war and involved no hardware development.

To summarize my position about my own involvement as a Jason member in the Vietnam war, I thought that what I did, at the time, was all in the direction of reducing casualties and in helping our getting out. As I said before, I would feel better if I had spoken out in public opposition, but I didn't and there it is. I have subsequently been a vocal opponent of the war as you would know if you were an FAS member.

I think that the condemnation of Jason as a whole on the basis of the barrier study is wrong and unfair. First, only a small fraction of the group was involved. Second, Jason has played a significant role in other areas of national defense and arms control. Further, the group is and has been involved in a wide variety of unclassified studies on important problems like air traffic control for example. Another aspect of Jason work worth mentioning is that a very large number of physicists appointed to the President's Science Advisory Committee during the past eight years have been Jason members. Finally, some of the most vocal and effective opponents of ABM over the years acquired their expertise and credibility from Jason.

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Dr. Peter Kleban

January 3, 1975

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Let me conclude with a few remarks about the "American Physicians ..." manifesto. Linking the development of laser guided bombs, "anti-personnel" fragmentation bombs and remote controlled incendiary devices to contributions of scientists to projects like Jason is ludicrous. To my positive knowledge, all of the above were either already developed or well on their way before the barrier study. The condemnation asked against those "who, of their own ..., are directly involved in this war" has in practice been exercised against some who were never involved or against those who haven't been involved in any way for five years. Charlie Townes may not have disowned, whatever that means, the application of lasers to bomb guidance, but I can tell you for a fact that neither he nor any other person worked on this device as part of a Jason project. The only Jason work on lasers I know of took place in 1965 (and had nothing to do with the war) and in 1971 (I think) which was an unclassified study of applications of lasers to problems like eye surgery, for example. I'm not in position to swear that there have not been other classified activities but I don't think there have. Elliot Montroll does not "occupy a senior position at I.D.A.". He was a vice-president at one time but hasn't been for years. It's hard to comment coherently on an incoherent document, so I'll stop.

The condemnation of the Jason scientists which is asked for is made mostly on the basis of things they were never involved with. As I stated, a small number of the group did work on the barrier during the summer of 1966. They did so perhaps under a delusion. It is always easy to condemn mistakes in retrospect but much harder to know how wise one himself might have been confronted with the actual circumstances that prevailed at the time. There weren't very many wise men around in 1966. A large number of our colleagues who sat around sucking their thumbs for years as well as a majority of the American people are equally worthy of condemnation.

I can't help you with your problem of moral ambiguity. If the work of the Federation is impaired by my Jason past, I regret it. But this fact was never hidden and was known to those who voted for me as Chairman. If you think we are doing a good job, join us.

Sincerely yours,

M.L. Goldberger

((15))

From Science for the People, March '73

BATTELLE MEMORIAL INSTITUTE

505 King Ave., Columbus, Ohio

Battelle is eightieth in the "Index of 500 Largest Military Prime Contractors for Research, Development, Test, and Evaluation Work (Fiscal Year 1967)."^{*} In that year, Battelle Memorial Institute received \$ 6,804,000 in "net value of military prime contract awards."

The following information is from Viet Report, January 1968.

Includes: Remote Area Conflict Information Center; Defense Information Center; Radiation Effects Center; Battelle Defender Information Analysis Center.

Primary focus: Research, Development, Test and Evaluation work in physical and life sciences, engineering and weapons technology. Includes Department of Defense Centers for Research and Development information on: counterinsurgency operations and equipment; aerospace metals; the effects of nuclear radiation on military equipment and personnel; and ballistic missile defense.

Current projects of special interest (sponsoring agencies in parentheses): Chemical and Biological Warfare agent research (Army Chemical Center); research on biological effects of nuclear explosions (Defense Atomic Support Agency); study of water resources in the Middle East for Project AGILE (Advanced Research Projects Agency, Department of Defense); long-term projections of supply and demand for agricultural products in Central America (Department of Agriculture); research on industrialization in Western Africa (Agency for International Development).

* Report, Office of the Secretary of Defense, Directorate for Statistical Services, December 28, 1967.

((16))

De Paul University
Chicago

January 10, 1973

Professor Freeman J. Dyson
Institute for Advanced Study
Princeton, New Jersey 08540

Dear Professor Dyson:

In a recent letter you and Professor Bott asked me to help the Battelle Rencontres Committee improve future Rencontres by comments on past ones, and discuss concrete ways in which participation in the past has influenced my work.

As far as I am concerned-- and, I believe, many other concerned scientists as well-- the best thing you, and any other planners and/or participants involved with the Jason project, IDA, DCPG, or ARPA, etc., could do is

- (1) cease all your services for the Pentagon;
- (2) repudiate the U.S. militaristic policies and corruptions of science in that service;
- (3) reveal whatever inside information you have about the military, as Ellsberg did.

To you the connection between these requests and the sense of your letter may seem tenuous; allow me to elaborate on how these requests have direct relevance to my own research and how the issues they raise inhibited the productivity that should have come out of my past participation with the Battelle Rencontres.

I attended the Rencontres on Group Representations and Quantum Mechanics at Battelle Seattle in the summer of 1969. I arrived the day that men were landing on the moon; the TV was on, and there was lively debate on the topic of the scientific significance of the expedition. I found this conversation much more revealing than the usual "I'm a high energy man; what's your field?" type of chit-chat. The tone was set for the possibility of interesting exchanges on all levels.

Under the tutelage of Professor Bargmann, these possibilities materialized. I was especially pleased with how some of the physicists really tried to teach this pure mathematician greenhorn what quantum mechanics was all about. Several concrete possibilities for collaboration occurred, including the relevance of factor representations of type II of the symmetry group of the Hamiltonian in a certain problem in solid state physics, and the possibility of a relativistic treatment of the tie-in of Brownian motion with quantum mechanics a la Edward Nelson. The enthusiasm this inspired in me was tremendous.

The Battelle Institute took very good care of us and used their resources quite well to encourage this exciting interaction.

I made personal friends with a number of participants, including one young physicist who worked for IDA. I didn't know much about IDA at the time, but I had vague malaise about his involvement with it and, therefore, mine with him. I felt like confronting him and saying, "What's a nice guy like you doing consulting for an outfit like that?" but I felt it was "out of place," "inappropriate in a scien-

tific context", and besides, in my weakness, I didn't want to offend anyone.

Then another young physicist at the Rencontres invited me to join him in putting my name on a memorandum he was circulating on the military contracts awarded the Battelle Memorial Institute; I enclose a copy of what we sent out. He and I had been bothered by the contradiction between, on the one hand, our feelings about the war in Vietnam, the technological development that made it possible, the compliancy of institutes like Battelle in that development, and, on the other, how the Institute was coddling us, making this nice interaction possible, etc. Although I did none of the research on the memorandum, I cosigned in a gesture of solidarity, because I had committed myself to confronting the American people with the war at every available opportunity.

The official reaction to the memorandum was one of benign neglect. However, it did stir up some discussion on the issues that we felt needed discussing. Many of the participants told us they couldn't see the point of the act; after all, it had no call to action and was purely informative. Also, to them it smacked of biting the hand that feeds you. I believe these criticisms were well taken, but more about that later. I was more disturbed by the friends who pulled me kindly aside and warned me of the imprudence of our act. One older mathematician told me that we would throw the country into fascism if people like me continued to actively protest the war as we had. The young physicist who worked for IDA informed me that he too was against the war, but the way we had gone about bringing it up was "inappropriate here." He didn't seem to want to join in helping us plan more appropriate ways. The unkindest cut of all came from another young physicist with whom I had become fast friends--he was a closet radical of sorts--who cautioned me that I could hurt my career by stunts like this, and if I weren't careful, I may never be invited to a conference like this again. After all, I was just getting started . . . "Then why the hell didn't you or someone else who's more established raise these issues?" I asked him heatedly. He informed me that he did raise these issues in private conversations with individuals and he let his feelings be known, but he thought that institutional attack was unwise and ineffective. I felt he had let me down a little, but all these criticisms made me wonder.

I still had cordial relations with the rest of the participants, and we talked some more good science. Nonetheless, I felt the contradictions even more keenly, and it inhibited active collaboration. For example, how was I to work with the solid state physicist (who was employed by Battelle) on the group representational aspects of his problem, when neither he nor I had any control over the results of our research? All the usual rationalizations presented themselves: first, the work was totally theoretical and probably had no practical application at all, much less a nefarious one; second, the work wasn't that important, and we'd be lucky if twenty people in the world read our paper; third, if a joint paper came out of this, my! how my career would be advanced, and maybe I'd get invited again to neat institutes like this and maybe the Institute (for Advanced Study in Princeton) and get government grants and get to travel and wouldn't my department be proud of me

I felt like I was falling into the same sewer that Oppenheimer fell into (if I seem to be flattering myself by the comparison, I can only recall that others have rationalized their compliance by self-effacement): that of going to neat protected institutes; of the ecstasy of doing pure science; and, then, with the cocky self assurance only the bright and successful have, of deciding now I'll use my talents to straighten out the country--set the military and government straight by getting in Jason (after all, I'm brighter and more humane, aren't I?)--and solve the world's problems behind closed doors with the rich and powerful. And be--Where the Action is.

Why is it a sewer? Because you're making decisions that affect other people's lives without being accountable to them. There is no mechanism whereby they can influence you. You are insulated from the fruits of your creations; the Vietnamese people--nay, even the American people--have no avenue of approach save confrontational protest. You may think that you can get some influence for good in these ways, but you're kidding yourself. You're a hired hand to the ruling class; they'll pick your brains and listen to your advice when it serves their interests and ignore you when it doesn't. You may consider yourself humane, liberal, and personally decent, but you are being used for evil purposes, and at present no one can stop this but you.

Professor Dyson, in the preceding paragraph I used the second person in a general sense, but you are welcome to interpret it as being addressed to you personally.

Thus, I cannot do science at institutes like Battelle, in view of its involvements with the power structure of this country, as well as the involvement of some of the participants, until we can freely confront these issues. Do not misunderstand me; I am not saying that I cannot do science with people unless they think the way I do about everything. The realities transcend our personal opinions about the war in Vietnam, U.S. policy, socialism, vivisection, etc. The point is that you make decisions, advise on policy, and direct technology in ways that affect people (killing the Vietnamese presumably affects them) and no one can confront you except me and others like me. People who do things like that must be held accountable by somebody, and until you are willing to be held accountable and disengage yourself from your masters, I can't do science with you or anybody like you.

I hope that your perspective is not so distorted that you cannot see that these issues are more important than the question of incorporating E-invariance into the Haag-Kastler axioms.

I read your AMS Bulletin article on "Missed Opportunities," by the way, and found it extremely stimulating and challenging. I feel that one way to pick up on the missed opportunities is to have interactions between mathematicians and physicists like those I saw at Battelle. I want badly to do that sort of science. But for me it is impossible until these incredibly urgent matters get resolved.

Professor Dyson, I rambled at such length for a number of reasons. The primary one was to respond to your inquiry sincerely and inform you how participation at Battelle has influenced my work, and how it can be more beneficial to me. And what I am asking of you in points (1), (2), and (3) is not outside your power. If you have already taken steps like these privately, please do so publicly, so others will know of your example; anyway, it is more than your own conscience to which you are accountable. It is the people of the world.

I guess another reason I rambled so was to take the opportunity to spill out things stewing inside me for a long time.

Finally, as you must be aware, until you hold yourself accountable, you are going to be subject to confrontation by groups like SESPA and the French scientists at Collège de France that confronted Gell-Mann. Until you do, I personally will confront you at the first opportunity. I hope these ramblings help you understand where we are coming from. And, as far as I am concerned, the confrontation is not to punish or to castigate, but to force you to be accountable and urge you to join us in building a science for the people, responsible to them, and not for the forces of profit, privilege, and war.

Sincerely yours,

Robert D. Ogden

((17))

THE INSTITUTE FOR ADVANCED STUDY

Princeton

January 16, 1973

Dr. Robert D. Ogden
 Department of Mathematics
 De Paul University
 2323 N. Seminary Avenue
 Chicago, Illinois 60614

Dear Dr. Ogden:

Thank you for your personal letter in response to the Battelle Rencontres enquiry. I will answer you as best I can. I do not expect you to agree with me. But I would like you to believe that I am as concerned as you are about the human consequences of science, and that I am as anxious to use rightly whatever influence I may happen to have acquired.

At the risk of appearing sanctimonious, I must say that the basic issue seems to me to be the one raised in Luke, chapter 6, verses 30-31. "But their scribes and Pharisees murmured against his disciples, saying, 'Why do ye eat and drink with publicans and sinners?' And Jesus answering said unto them, 'They that are whole need not a physician, but they that are sick.'" As a member of JASON, I sit down with all kinds of people who are caught up in one part or another of the United States government and the armed forces. You can call them publicans and sinners if you like. They are people like us, facing difficult problems and badly needing contact with the outside world to give them a clearer perspective. As a JASON member I am given the opportunity to talk with these people and to bring them into touch with reality as I see it. I cannot know whether my attempts to influence their attitudes are successful. But I know that I would be betraying my responsibility to humanity if I did not try.

It seems to me that the position adopted by SESPA is close to the position of the Pharisees. People inside the government are sinners and the rest of us should preserve our purity by denouncing them. Jesus did not see it that way and neither do I. Of course it is ridiculous to make a comparison between the feeble efforts of JASON members to talk sense to the generals and the efforts of Jesus to change people's lives. But it is important, quite apart from JASON, to establish the principle that one may eat and drink with sinners without being used by them. Was Jesus used by the company he kept?

I think the chief difference between us is that you have 40 years to try to make the world a better place; while I only have 20 years. I have not so much time to lose, and I will not waste any of it in purposeless denunciations.

I look forward to meeting you some time to discuss these questions further, and, if you are willing, physics too.

Yours sincerely,

Freeman J. Dyson

JASON's New Home

Early in 1973, JASON left the Institute for Defense Analyses (IDA) in Washington D.C., which had been its home for almost 15 years, and moved into a new home created at the Stanford Research Institute (SRI) in Menlo Park, California. It has been speculated that this move away from the nation's capital and out to the west coast signified a demotion in prestige for JASON; or perhaps it is just that the search for the golden fleece naturally leads westward. In any case, we shall find it more interesting to compare the overall orientations of these two homesites on some objective bases.

The directorates of IDA and SRI reflect a basic difference in emphasis for these two large think tanks. Of the 20 member Board of Trustees of IDA (in 1970), 12 were academics, 1 was from inside IDA, and 7 were so-called "public trustees": these seven consisted of three retired generals and four big businessmen who also had some records of service within the Department of Defense (DOD). Thus, IDA is chiefly tied to the military-academic axis. By contrast, SRI's Board of Directors (1972) is composed of 1 academic, 3 people from inside SRI, and 9 members from large business concerns, showing its roots to be firmly planted in the corporate world.

IDA conducts research exclusively for the federal government. In 1970, with a total operating budget of \$14 million, it received 90% of its government income from the DOD. By comparison, in 1972 SRI total revenues were \$70 million; 42% of this was from the DOD, 33% from other government sources and 23% came from commercial clients. SRI is not only bigger than IDA, it is also more diversified. What is the thrust of SRI's non-military research program? "International development planning and implementation for governments and international organizations to accelerate economic and social advancement ... Applied research for profit-oriented clients interested in international trade, investment and market development opportunities." (quoted from SRI brochure.) SRI has established a position for itself as the leading research and planning advisor to the big multinational corporations.

The ethical philosophy which guides their application of scientific research to human problems was stated by SRI's president, Charles A. Anderson, "Our eyes remain fastened on the job of advancing man's knowledge in the service of our clients." (quoted from the San Francisco Chronicle financial page 12/12/69)

If SRI as a whole offers a broad range of services for all major sectors of the military-industrial complex (or, more generally, the system of U.S. imperialism), the JASON group remains centered on military matters. The work of JASON at SRI is funded under a contract from the DOD's Advanced Research Projects Agency (ARPA). Contract No. DAHC15 73 C 0370 specifies as follows.

" The contractor shall establish and support a special study group to continue the work of the IDA JASON group. Under ARPA sponsorship, this group, which will number approximately 40 part-time consultants drawn primarily from the academic community, will work on technical problems as deemed appropriate by ARPA and the group. In general, the group will study basic defense research problems, identify basic research problems of potential value to the national defense that are not now receiving adequate attention in the scientific community, develop conceptual contributions toward solution of technical problems of the Department of Defense, and investigate other

areas of study as may contribute to the mission of ARPA. Technical work will include a summer study of approximately six weeks' duration; two- or three-day briefing sessions normally held in the fall and spring; defense-related laboratory visits; and part-time continued work throughout the year. "

That spells out JASON's mission very clearly as related to ARPA's mission. The mission of ARPA, within the DOD, is spelled out in the testimony of Dr. John S. Foster, Jr., Director of Defense Research and Engineering, in hearings before the House Armed Services Committee on April 12, 1973. (ARPA's name has recently been changed to DARPA and it has been given a new separate status within the DOD.)

"Technology is characterized by rapid change, with new opportunities arising from widely expanding knowledge. In this situation, it is important to invest part of our R&D resources at the leading edge of technology, to explore areas of high risk with a potential high payoff. We find that a small, highly capable, flexible and independent organization is needed to conduct this type of activity, and we look to DARPA to fulfill this requirement.

...Long-term commitments are not the rule in DARPA programs; rather, its function is to act as a leader and catalyst, demonstrating military potential as fast as possible. .. "

We shall return shortly to study some of these hot military research projects that ARPA and JASON are involved in currently.

JASON's People

In response to our written inquiry to ARPA headquarters in Washington, we have received (after a modest delay) a packet of official information about JASON's current activity, along with an up-to-date list of the group's members. These names are given on the next page, along with each person's university and departmental affiliation, as derived from standard reference sources. Previously, the most complete source list of JASON membership (obtained in the late 1960's and published by NACLA; see reference (1)) contained 43 names. It appears now that some of those previously identified as "members" of the group properly ought to have been titled as "advisors" or "consultants" to JASON; but aside from this minutia, we have learned of no error in the previous publications. Of that earlier group of 43, 23 remain members at present; they are joined by 10 new members, some of whom are young people and some of whom are senior people. Some of those former JASON members, no longer on the list today, dropped out of the group as far back as 1967, according to recent communications we have received. Some others resigned only last year. Overall, the group still can boast a predominance of members with absolutely first rate scientific reputations.

Professor Peterson has assumed the job as the JASON project supervisor within SRI; and Professor Watson has replaced Professor Lewis as chairman of JASON's internal steering committee.

During the summer of 1972, a number of distinguished JASON physicists were met with very vocal protests against their war-supporting work, while they were visiting in Europe. (See reference (1).) While it appears that the number of JASON's willing to risk this exposure the following summer, 1973,

JASON Study Group at SRI Membership as of December 1973

U. of California:

San Diego Norman M. Kroll (Physics)
Walter H. Munk (Geophysics)
William A. Nierenberg (Physics)
Herbert F. York (Physics)

Berkeley Richard A. Muller (Lawrence Berkeley Laboratory)
Charles H. Townes (Physics)
Kenneth M. Watson (Physics)

Santa Barbara Harold W. Lewis (Physics)

Santa Cruz Stanley M. Flatté (Physics)

Princeton U.: Curtis G. Callan (Physics)
Roger F. Dashen (Physics)
Freeman J. Dyson (Institute for Advanced Studies)
Val L. Fitch (Physics)
Edward A. Frieman (Astrophysical Sciences)
Marvin L. Goldberger (Physics)
Francis W. Perkins, Jr. (Astrophysical Sciences)
Marshall N. Rosenbluth (Astrophysical Sciences)

Stanford U.: Samuel M. Berman (Physics, SLAC)
Sidney D. Drell (Physics, SLAC)
Joshua Lederberg (Genetics)
Wolfgang K.H. Panofsky (Physics, SLAC)
Allen M. Peterson (Electrical Engineering)
Burton Richter (Physics, SLAC)

Columbia U.: Henry M. Foley (Physics)
Richard L. Garwin (Physics)
Malvin A. Ruderman (Physics)

Cal. Inst. Tech.: Frederik Zachariasen (Physics)

Dartmouth : Gordon J.F. MacDonald

Harvard U. : Steven Weinberg (Physics)

U. of Illinois : Charles P. Slichter (Physics)

Rockefeller U.: Kenneth M. Case (Physics)

NASA, Houston : Joseph W. Chamberlain (Lunar Science Institute)

R&D Associates : Robert E. LeLevier

was markedly reduced, there was still some renewed protest action abroad. In May, a large number of teachers at Delhi University objected to the visit of Dr. Roger Dashen, because of his JASON work, and his lecture was cancelled. In July, at a physics summer school in Cargèse, a statement condemning JASON, provoked by the presence of Dr. Curtis Callan, was signed by 90% of the participating scientists.

In this country, early in 1973, following publication of SESPA's booklet, "Science Against the People", the public criticism of this war-research group reached extraordinary heights. There was sharp activity against JASON in many places: Berkeley, Los Angeles, Columbia University (where there has been a continuing protest directed at the local JASON members for over two years) at the annual meeting of the American Physical Society, in the pages of "Science" and "Physics Today", as well as in the popular press and TV.

Most of the JASON people remained publicly silent in the face of this extensive criticism. Only a couple of them were willing to engage in public debate about their participation in the military programs. Some have complained privately, or not so privately, about what they consider the unfair tactics of their critics.

One former JASON member wrote to this author (in December 1973), "I resigned early this year - I hadn't done anything on Jason for years, but I wouldn't resign while the heat was on." At about the same time, a continuing JASON member wrote, "After noting how the local SESPA group distorted and fabricated reasons for one .. colleague no longer being on a list of Jason members, I do not expect to see circumstances in which I would ask for my name to be removed even if my activities completely cease. "

Apparently, some JASON people have a large investment of pride and ego in the rectitude of their position, and issues of this petty sort seem to dominate over any attempt to discuss the substantive subject of their military involvement. Some might resign, but only for purely personal reasons (too busy, etc.) ; they appear unable to acknowledge that public opinion is a legitimate pressure to be felt by those who engage themselves in the public business. (For more on JASON's rationales for their work, see reference (1)).

Our chief concern will be with learning about and evaluating the ongoing work of JASON. We now turn to this task.

JASON's Work

From two quarterly reports summarizing JASON's activity at SRI, from April through September, 1973, we learn the following schedule. A 3-day Spring Meeting at SRI was attended by 20 JASONS. Dr. S.J. Lukasik, Director of ARPA, was the lead-off speaker in a series of lectures designed to lay out the variety of scientific problems that ARPA would like JASON to tackle; and plans were laid for JASON's major annual undertaking, the 6-7 week Summer Study. Twenty-four JASON members attended the Summer Study; and the topics worked on, along with a rough estimate of the relative expenditure on each, are enumerated in Table 1, reproduced on the following page.

On September 18, selected members of the group gave preliminary briefings to ARPA, reporting on the seven main results of the Summer Study (more on this

Table 1

SUMMER STUDY TOPICS

<u>Topic</u>	<u>K\$</u>	<u>Participants</u>
Underwater Sound Propagation	23.9	Munk, Callan, Flatté, Nierenberg, Richter, Rosenbluth, Watson, Zachariasen
Turbulence Theory	16.6	Case, Dyson, Frieman, Perkins, Watson
Frieman Panel	9.5	Frieman, Dyson, Garwin, Kroll, Lewis Peterson, Ruderman, Watson
Stratospheric Ozone	9.2	Ruderman, Chamberlain, Nierenberg
Ionospheric Modeling	8.8	Peterson, Perkins, Chamberlain, LeLevier
SALT-Related Issues	8.0	Drell, Garwin, Berman, Richter
Laser Interaction With Matter	6.1	Kroll, Watson
Ground-Based Optical SOI	5.3	Lewis, Dyson, Muller, Ruderman, Watson, Weinberg
LORAN	3.8	Berman, Peterson, Richter
RADAM	2.0	Peterson
Wave Interaction	1.7	Zachariasen, Callan
Lithospheric Propagation	1.3	Kroll
OTH-B	0.8	LeLevier, Nierenberg
Secure Voice	0.8	Lewis
Energy	0.2	Frieman

briefing later); and a dozen reports were in the process of being written up describing these accomplishments. (Material to be published must first be submitted to ARPA for "security review.") A fall meeting was scheduled for three days in November to be held at the Center for Naval Analyses in Rosslyn, Virginia (perhaps to continue their work on anti-submarine warfare, which we shall shortly discuss.) The total amount of money funded by ARPA for this work was \$472,623.

Now we shall try to interpret and analyze this information. This task is made difficult because of the cloak of military secrecy which envelopes JASON work. We have to work by inference from the titles shown in Table 1 and from other general discussions of current topics in strategic military technology. Also, from Congressional budget hearings we can get some descriptions of current ARPA projects. We have sought to obtain more information from JASON about the reports they have written on this past summer's work, but to no avail. (A letter was written to Dr. Peterson, asking for a list of titles and abstracts of the JASON reports covering last summer's work, and an indication of which reports were classified and which were available for public inspection. Two mailings of this letter -- one by registered mail -- plus three follow-up phone calls to JASON's SRI office, have yielded no response whatsoever. This tight-shut behavior was something of surprise, especially after we were advised privately by one JASON member that the group had resolved to be more open and cooperative with outsiders, apparently in an attempt to make up for the bad public image they earned last year.)

Turning our attention to the list of JASON Summer Study Topics, it is apparent that most of their attention is concentrated on the new technologies of strategic nuclear weaponry deep under the ocean and high up in the sky. The number one emphasis appears to be on techniques of anti-submarine warfare (ASW). The big unsolved technical question is how to locate enemy submarines throughout the ocean. Since electromagnetic waves (light, radio waves, radar) cannot propagate very far in the water, sound waves (sonar, for example) are the best bet. However, there are difficult problems about how to make a sonar system that can span the whole ocean and not get confused by false signals, such as reflections of sound from the suboceanic terrain, schools of fish, turbulence and other variations in the water itself. As a measure of JASON's primary effort on ASW research, we note the following three topics included in their post-summer briefing report to ARPA:

- "Ocean-Emplaced Antenna for Lithospheric Propagation" (N. Kroll)
- "Oceanic Hearing" (W. Munk)
- "Numerical Simulation of Turbulence" (K. Case)

The upper atmosphere is important in planning for nuclear war for several reasons. Spotting and tracking of enemy targets or incoming missiles can be done by direct radar watching at the sky or by bouncing radar off the ionosphere and back down towards the earth. (OTH stands for "over-the-horizon" radar technique.) So it is necessary to know all the strange phenomena, natural fluctuations as well as effects induced by nuclear explosions, that can take place in the upper layers of the atmosphere. "SOI" stands for "space object identification"; and there have been new improved optical techniques worked out for checking on satellites and such threatening objects as both the U.S. and the U.S.S.R. have populated the heavens with. Laser weapons have also been the subject of much speculation, as possible devices to be used -- ray gun style -- against anything traveling overhead. A laser provides a very fast, very accurate, very powerful and concentrated energy beam; but the problem, so far, has been how to get through the atmosphere without losing

all the beam energy in random heating. The post-summer briefings that seem to relate to these general areas were:

"Optical Space Object Identification" (H. Lewis)

"Ionospheric Modeling" (F. Perkins)

"Ozone Suppression from Nuclear Explosions and Stratospheric Aircraft" (M. Ruderman) and perhaps also relevant here, the briefing on Turbulence, mentioned above.

The one remaining briefing report was entitled, "Design Considerations for Strategic Bombers and Their Missile Armaments" (R. Garwin). This probably relates to either of the Summer Study topics listed as "Friedman Panel" or "SALT-Related Issues", or perhaps both of them.

Further insight into the military interest behind the scientific studies undertaken by JASON can be gained by reading Congressional testimony given early in 1973 by ARPA's Director as he explained what his next year's budget was going to be spent for. Dr. Lukasik appeared before the Armed Services Committees of the Senate and of the House, on May 29 and June 5, respectively. Although many parts of his testimony have been deleted from the public transcript (for security reasons), we can get at least a minimum picture of where all this research is heading:

*** The Illiac IV, "the most powerful computer now in existence", has been installed at NASA-Ames Research Center and will bring a new ability to solve "many complicated problems in aerodynamics, nuclear physics, and atmospheric simulation." (Ames is right near SRI and JASON was briefed on the Illiac IV.) One special area of interest for atmospheric calculations is "to develop a capability for the quantitative prediction of climatic effects of any major human action" in view of the fact that "a relatively minor variation in climate can be as damaging to a nation as an overt act of war." Using the usual governmental doubletalk, Lukasik explained that we should develop a capability in this area (usually called weather modification warfare) in order to deter such possible threats "by other nations."

*** Concluding a discussion of the optical SOI problem, Lukasik stated, "Because of the technical importance of this work and the excellent research results achieved so far, we have planned an enlarged program in strategic space technology in the next fiscal year."

*** He also reported good progress on OTH radar (about to be turned over to the Navy and Air Force) and related problems of ionospheric modification.

*** ARPA emphasis in "the maintenance of the U.S. strategic deterrent" is placed on ASW research. On the one hand it is stressed that the nuclear submarines, because they are hidden in the ocean and thus invulnerable to a surprise attack, now provide the essential stability of the US-USSR mutual deterrence. On the other hand, however, a massive research effort is underway to seek ways of locating and tracking these submarines, thus rendering them vulnerable to attack.

Conclusion

We have seen that JASON's recent work is concentrated on those problems most in the forefront of Pentagon interests relating to the U.S. technological capabilities for nuclear warfare. To go beyond the general outlines we have drawn from the limited information at hand, it would be very helpful to see details of the JASON reports; but these have so far been denied us.

At the present time, the whole picture of the US-USSR nuclear arms race has taken on a very disturbing aspect. After the SALT I agreements, it has become

apparent that both sides have fully embarked upon the sort of "technological arms race" that was predicted, and feared. New qualitative advances in nuclear weaponry have the potentiality for upsetting the balance of terror, something which mere numbers of missiles could not do. The deployment of MIRV (multiple warheads) on the nuclear missiles, especially with the now announced plans for improved targeting accuracy and greater explosive power, will make the land-based ICBM forces vulnerable to a first strike; and success in the development of an ASW capability to knock out enemy submarines would lead to a situation of extreme instability, in which a first strike strategy would appear imperative.

The arms race is, of course, a reciprocal business. Each side says that it wants only to defend itself; and it develops weapons only for the stated purpose of deterring a possible attack by the other side. Yet, the kind of weaponry being developed and researched only makes each side fear that the other side may actually be going for a first strike capability. The logical outcome of this progression is catastrophic nuclear war.

Likewise, the JASON scientists (those whom we occasionally talk with) stress that their aim is to prevent, not to provoke nuclear war. But it is very difficult to make a credible distinction between the defensive and the offensive capabilities of some new weapons development, even in a purely theoretical discussion. And then there is always the question of whether their research results, intended by them to maintain the peace, might be applied by their masters in the Pentagon toward some reverse goal, for example, to achieve the capability to wage a "winning" nuclear war.

It is all too easy to find suggestions that this dangerous trend is at work in the Pentagon's planning. We noticed the following example in Lukasik's testimony before the House Committee (p. 3527): After explaining the fact that the US submarines are quieter than the Soviets', and that quietness helps keep the submarines undetectable and therefore secure from a surprise attack, Lukasik says, "The Soviet Union is attempting to reach a similar level of quieting for its submarines and, if they are completely successful, the United States will be faced with a threat which may not be detectable." As another indication of the very large push behind ASW development, there is the published estimate of the Navy's budget in this area as \$3.6 billion per year. (New York Times 1/17/74)

Add to all these disturbing facts the continuing veil of secrecy over these military scientific projects. This secrecy only serves to accentuate the fears, not only of the American citizen but also of the Soviet military planners, about the ultimate intended use of all this ever more sophisticated weaponry.

It is as if we are locked inside a moving vehicle from which there is no escape; the steering gear is out of control and the person in the driver's seat is unwilling or unable to apply the brakes; somewhere outside, in the fog of this unknown terrain, is a precipice, dropping off to oblivion; and to cap it all off, there is this expert mechanic, a man with a brilliant technical mind, who is busily at work to speed up the engine and make it work more efficiently. Our future seems very insecure.

ADDITIONAL INFORMATION REGARDING JASON

Professor Samuel Berman of Stanford University has informed the author that he is no longer a member of JASON.

Professor Malvin Ruderman of Columbia University has written to the author, stating that his work on Ozone Suppression is entirely unrelated to matters of nuclear warfare and is available in the open literature. He also stated that the author's guess about the subject matter of the "Frieman Panel" is quite wrong; however, he was unable to say more about this because it was classified.

C. Schwartz
April 11, 1974

PARIS

On June 1972, M. Gell-Mann had been invited by Collège de France (Paris) to give a couple of seminars on elementary particle theory. The "Collectif Intersyndical Universitaire d'Orsay 'Vietnam-Laos-Cambodge' " distributed a documented analysis of Gell-Mann involvement with the activities of the Jason Committee ((1)), ((4)) .

Gell-Mann was expelled from Collège de France , as related by Combat ((2)) and Le Nouvel Observateur ((3)) .

R. Godement, professor at Collège de France, wrote to the Administrator, prof. E. Wolff, his approval of the action against Gell-Mann ((5)).

A.Kastler , in a letter to Le Monde ((6)) , asked people to remember that a few American physicists (including Gell-Mann) had written to Nixon asking for an end of the Vietnam war . The relevance of this reminder with respect to the involvement with Jason was not clarified by Kastler .

The French "Collectif Intersyndical" published a "WAR PROFESSORS" poster ((7)) that led to an exchange of correspondence :

E.E.Salpeter (Cornell) to D. Schiff (Orsay) - August 4, 1972 ((8))

D.Schiff to E.E.Salpeter - October 3, 1972 ((9))

E.E.Salpeter to D.Schiff - November 1, 1972 ((10))

((1))

text distributed by the "Collectif Intersyndical Universitaire d'Orsay
'Vietnam-Laos-Cambodge' " - Paris 13/6/72
as translated and published on "Science for the People", nov.1972

THE COLLEGE DE FRANCE, THE JASON DIVISION, AND THE WAR IN INDOCHINA

Since the beginning of the current escalation of the war against North Viet Nam, hundreds of pellet bombs have struck the town of Nam Dinh, killing more than one thousand people. On June 13, 1972, far from Nam Dinh, far from Viet Nam, Mr. Murray Gell-Mann, Nobel Prizewinning physicist, who is one of the most competent and well-known men in his fields, was invited to the Collège de France to give two lectures on quarks (a revolutionary hypothesis on the structure of elementary particles of which Gell-Mann himself is a co-author). For the first time in the history of the prestigious Collège de France, a lecturer was not permitted to give his talk; instead, a group of scientific workers from Paris and the suburban research center at Orsay, ushered Professor Gell-Mann to street. Why? Mr. Gell-Mann has been a member of the Jason Division of the Institute for Defense Analysis (I.D.A.), the Pentagon's technical advisory organ.

As an integral part of the attempt to suppress the resistance of the Indochina people, American policy-makers have encouraged the extensive development of scientific methods well-adapted to serve a policy aimed at destroying human beings and nature. In 1966, Robert McNamara called together, under the umbrella of Jason, 47 of the most eminent American scientists. His intent was to enlist their expertise in the development and implementation of new destruction techniques (cf. The Pentagon Papers, Bantam Extra Edition, p.483): thus was born the technological war. The true nature of the contribution of these scientists has long remained unknown.

In 1970, American anti-war militants seized a collection of secret documents (including lists of members of work committees, minutes of certain sessions of I.D.A. committees) which they released to the public (cf. "The Student Mobilizer", April, 1970, "New York Review of Books", November 19, 1970). These documents leave no doubt as to the active and creative participation of

the Jason Division scientists in the technological war. In a Jason report, recommending the construction of an electronic barrier in Viet Nam, we read:

"The key requirements would be (all numbers are approximate because of assumptions which had to be made regarding degradation of system components in field use, and regarding the magnitude of infiltration): twenty million Gravel mines per month; possibly twenty-five million button bomblets per month; ten thousand SADEYE-BLU-26B clusters (pellet bombs) per month..... These quantities depend on an average number of strikes consistent with the assumption of 7000 troops/month and 180 tons/day of supplies on the infiltration routes." (Pentagon Papers, Gravel Edition, vol.4,p.122)

Because he participated in producing this report, Professor Gell-Mann was expelled from the Collège de France by a group of scientific workers.

Gell-Mann is not an isolated case, he is not a scientist gone astray. All 47 men, attracted by the Pentagon to work on Jason technical projects for mass murder, are prestigious members of the Academic Community. Mindful of the freedom and happiness of mankind, Gell-Mann devotes weekdays to his theoretical research which has no possible military applications. Indeed, he is distressed by the progressive deterioration of the environment from industrial pollutants (cf. "How scientists can really help", in "Physics Today", May, 1971). But during university vacations¹, he turns his attention to a new scientific problem: given peoples who resist American imperialism and its puppet regimes, how can one most effectively wound, mutilate, or kill, the maximum number of civilians without employing, for the moment, strategic or tactical nuclear weapons. It is to such madness that "rational" science leads when devoid of human values.

More than three-fourths of Jason's members are physicists, among whom five have received the Nobel Prize². One I.D.A. session was organized on the possible military application of lasers; the cream of America's physicists assembled on the California coast for several weeks to consider this question. Today, in Indochina, laser-guided bombs are striking targets as precise as the caves which serve as air-raid shelters for the civilian population. One member of Jason, Charles Townes, has been particularly noteworthy for his failure to disavow laser-guidance systems. Indeed, we do not know that he has not encouraged such development-Mr. Townes received the Nobel Prize for the invention of lasers.

To help the Pentagon, Jason's members do not confine themselves to their fields of expertise, but frequently stray across disciplinary boundaries. One Jason session was devoted to the creation of a social science division, advantageous because "Jason prestige...makes SS (social scientists) available to necessary tasks" and gives "the government.....the use of their time".⁴ One "social science" problem: counter-insurgency in Thailand. The minutes of the session read:

"Because of their views of responsibilities and because of their lack of commitment to others, villagers cannot be expected to organize effectively for their own protection. One technique, perhaps, for handling this problem would be to recruit villagers (possibly from the same class who now join the insurgents) into an armed, uniformed, paid militia, perhaps responsible to the local police. This force would provide aggressive young village males not only a way of dissipating excess energy, but a possible route for promotion and success."⁵

In this same session, the eminent physicist, Murray Gell-Mann, ventured into social science territory to ask "Can we find out what effect increasing police density or ear cutting or other negatives have on villager attitudes?"⁶

On June 13, 1972, some hundred scientific workers confronted Gell-Mann with this evidence of his complicity with the war machine. Gell-Mann was asked:

"You have shown a concern for the environment by participating in Earth Day last year. What do you think of the 26 million bomb craters in Viet Nam ?

Are you ready to condemn the American bombing attacks on the dikes and hydraulic works of North Viet Nam ?"

To these and all other questions, Gell-Mann responded: "I am not free to answer."

The use of the advanced technology in the war, introduced and sanctioned by Jason scientists--new doctors Strange-love-is denounced in the United States itself by groups of scientists opposed to the imperialist war waged in the name of all the American people. These groups include: NARMIC (National Action

Research on the Military-Industrial Complex), which has researched and produced a slide show documenting the electronic air war in Indochina; and "Science for Viet Nam", whose members include nonscientists, as well as zoologists, doctors, biologists and physicists who attempt to help the scientists of Viet Nam deal with war related problems. But it is not only the Vietnamese and the American who are concerned, as certain professors at the College de France would have us believe: each of us at our place of work can demand an accounting of those who have contributed to American war crimes and denounce their complicity.

Collectif Intersyndical Universitaire d'Orsay
"Vietnam-Laos-Cambodge"

FOOTNOTES

- 1 "The primary group activity is an annual study in which the Jason members come together for seven weeks of intensive study of significant technical problems related to the national interest" -current I.D.A. recruiting booklet.
- 2 A list of the Jason members as of 1970 can be found in "The University-Military-Police Complex : a directory and related documents", published by NACLA, Berkeley, California, 1970.
- 3 cf.M. Bazin: "Science, Scientists, and the Third World", in "Forum on Physics and Society", American Physical Society, Jan.31, 1972 (also in "Science for the People", vol.IV n.3, May 1972).
- 4 Remarks of M. Gell-Mann at the Jason "Thailand Study Group" in "The Student Mobilizer", April, 1970.
- 5 Jason: "Thailand Study Group" minutes.
- 6 "The Student Mobilizer" loc. cit.

COMBAT, 16/6/72

UN PRIX NOBEL AMERICAIN EMPÊCHÉ DE PARLER AU COLLÈGE DE FRANCE

Mardi dernier, un éminent physicien américain, Prix Nobel 1969, qui devait donner une conférence au Collège de France a été contraint de quitter la salle sans avoir pu parler. Le professeur Murray Gell-Mann enseigne au California Institute of Technology, mais accessoirement il a fait partie sous l'administration Johnson de la "Division Jason" de l'Institute for Defense Analysis. Les travaux de cette Division concernent les techniques les plus savantes de la guerre moderne et sont en particulier utilisées en Indochine: defoliants, bombes à fragmentation ou guidées par laser, système de vision nocturne et autres utilisées par

les armées américaines et sud-vietnamiennes, sont sortis des cervaux fertiles de cette Division Jason avec laquelle collaborent le Pentagone et la CIA. Mardi, une quarantaine de chercheurs, membres pour la plupart du "collectif intersyndical universitaire d'Orsay Vietnam-Laos-Cambodge", ont demandé à M. Gell-Mann de s'expliquer sur ses activités au sein de la Division Jason. Sous le feu roulant des questions auxquelles il se refusait de répondre "n'étant pas venu pour parler du Vietnam", le Prix Nobel fut contraint de quitter les lieux et d'aller faire sa conférence dans une autre salle devant une dizaine de personnes.

Le lendemain mercredi, le professeur Gell-Mann se présenta de nouveau pour sa seconde et dernière conférence. Cette fois c'est une centaine de personnes qui l'attendait. Des techniciens et chercheurs du Collège de France avaient grossi les rangs de ses contradicteurs de la veille. Mais cette fois, M. Gell-Mann fut contraint de rester dans la salle et sommé de répondre. Mm. Wolv, administrateur du Collège de France et Francis Perrin professeur, appelés d'urgence, tentèrent d'arbitrer sans toutefois prendre position sur le fond.

Puis M. Gell-Mann, refusant toujours de répondre aux questions et l'auditoire étant peu disposé à écouter un exposé sur les particules élémentaires, le Prix Nobel fut reconduit à la grille du Collège de France et prié de ne plus s'y représenter.

LE NOUVEL OBSERVATEUR, 26/6/72

LE SAVANT DU PENTAGONE

Murray Gell-Mann, Prix Nobel 1969, passe pour le "patron" mondial de la physique des hautes énergies. Les 13 et 14 juin, le Collège de France s'honorait de recevoir cette sommité scientifique pour deux conférences. Elles ne purent avoir lieu.

Le mardi 13, en effet, avant que Gell-Mann ait pu commencer son exposé, une cinquantaine de scientifiques français l'interpellent dans l'amphithéâtre où ils ont pris place:

"Condamnez-vous la guerre technologique au Vietnam ?

- Je ne suis pas libre de répondre.

- Parce que vous êtes un esclave du Pentagone ?

- Oui."

Un groupe de douze savants français sauvent alors Gell-Mann de la "contestation" en allant s'enfermer avec lui dans la bibliothèque, où ils écoutent son exposé.

Le mercredi 14, la même scène se répète. Il y a maintenant une centaine de scientifiques dans l'amphi. Ils interpellent Gell-Mann. Ils l'entourent, lui présentent des documents qui attestent sa participation directe à la mise au point, en collaboration avec l'armée américaine et la C.I.A. des armes et des méthodes technologiques employées au Viêt-nam contre la population civile.

Gell-Mann, en effet, fait partie de la "Division Jason" qui, surtout à partir de 1966, conseille le Pentagone sur les méthodes de guerre les plus efficaces à employer au Viêt-nam. C'est cette "Division Jason" qui a montré l'inefficacité des bombardements "classiques" du Nord et a recommandé l'utilisation massive de bombes à billes et de mines à grenaille (dites Gravel) en matière plastique: la grenaille est transparente aux rayons X, ce qui la rend très difficile à extraire des blessures.

Confronté avec ces documents, Gell-Mann refuse de s'expliquer. Les douze savants français de la veille prennent sa défense, accusent leurs collègues "contestataires" de "méthodes fascistes", vont chercher les professeurs Wolff et Perrin, qui tentent de rétablir le calme. En vain, Gell-Mann est poussé dans la rue par une centaine de scientifiques français.

Question: Pourquoi le Collège de France, où les "progressistes" sont prépondérants, a-t-il tenu à inviter Gell-Mann ? La réponse est double: ce prestigieux physicien théorique, qui a enseigné en France en 1959-1960, est un invité difficile à attirer. Ses prétentions financières sont à la hauteur de sa renommée. Or il est sur le point de terminer son année à C.E.R.N., à Genève. C'était l'occasion ou jamais de le faire venir à Paris.

Second élément de réponse: le rôle de Gell-Mann à la "Division Jason" est un fait peu connu. Ses hôtes du Collège de France semblent l'avoir ignoré. Ils se doutaient, certes, que Gell-Mann, tout comme la grande majorité de l'élite scientifique américaine, faisait des travaux financés par le Pentagone. Mais ils ignoraient qu'il faisait partie d'un "cercle intérieur" s'occupant des problèmes spécifiques de la conduite de la guerre technologique et de l'extermination de la population civile.

Les scientifiques français qui ont organisé l'expulsion de Gell-Mann avaient été informés, eux, de son activité militaire: leurs collègues américains leur en avaient fourni des preuves irréfutables, contenus dans des documents confidentiels. Ces documents et ces preuves sont sur le point d'être rendus publics à l'intention de la communauté scientifique internationale. Les prochaines conférences de Gell-Mann promettent d'être aussi agitées que celle qu'il n'a pu faire à Paris.

((4))

Distributed by the Collectif Intersyndical Universitaire d'Orsay "Vietnam-Laos-Cambodge" - Paris 13/6/72

UN ASPECT PEU CONNU DE L'OEUVRE DE GELL-MANN ET D'AUTRES SCIENTIFIQUES

Nous voulons dénoncer la participation de Gell-Mann et de certains scientifiques américains à la guerre du Viet-nam. C'est à Gell-Mann, à la fois en tant que personne et en tant que symbole des scientifiques qui ont collaboré avec le Pentagone, que nous nous adressons; nous aurions pu aussi choisir l'un quelconque des physiciens de la liste ci-jointe.

Gell-Mann est membre du "President's Science Advisory Committee", l'organisme de consultation scientifique le plus proche de Nixon, et il a été de

1961 à 1970 membre de la division Jason de l'Institute for Defence Analysis (I.D.A.).

I.D.A.: Institut de recherche dont le président est le général Maxwell Taylor, ancien ambassadeur US au Viet-nam. Domaines de recherche: évaluation des systèmes d'armes, aspects techniques de la contre-insurrection, applications militaires des lasers, utilisation des armes chimiques, bactériologiques, nucléaires tactiques.

DIVISION JASON: Une brochure "publicitaire" de l'I.D.A. la décrit comme "un groupe de recherche formé d'une quarantaine de scientifiques d'élite qui mettent une part importante de leur temps à la disposition de l'I.D.A. Chaque été, les membres de Jason étudient au cours d'une session de travail des problèmes techniques liés à des questions d'intérêt national". Jason s'occupe, à partir de 1966, de problèmes liés à la guerre du Viet-Nam: "une attention accrue de la part du gouvernement sur des problèmes tels que contre-insurrection, insurrection et infiltration conduit à suggérer que les membres de Jason pourraient fournir des idées neuves sur des problèmes qui ne sont pas entièrement du domaine des sciences physique".

(Rapport annuel I.D.A. 1966)

JASON ET LA GUERRE ELECTRONIQUE EN INDOCHINE

A partir de 1966, plusieurs membres de Jason se rendent au Viet-Nam. Le "Dossier du Pentagone", édition française page 513, décrit la session Jason de l'été 66 qui joua un grand rôle dans la décision de Mac-Namara d'utiliser en Indochine de plus en plus d'équipement technologique de pointe: techniques de défoliation, systèmes de vision nocturne, détecteurs sismiques et acoustiques, émetteurs-récepteurs reliés à des ordinateurs en Thaïlande, systèmes pouvant déclencher les bombardements aériens automatiquement, bombes guidées, bombes à télévision. Cette session fut en effet consacrée, à la demande de Mac-Namara, "aux possibilités techniques en liaison avec nos opérations au Viet-Nam". Les membres de Jason écoutèrent pendant 10 jours des briefings de hauts fonctionnaires du Pentagone et de la CIA et travaillèrent pendant 2 mois. Ils rencontrèrent à 2 reprises Mac-Namara et rédigèrent pour lui un rapport dans lequel, après avoir démontré l'inefficacité des bombardements sur le Nord Viet-Nam, ils proposèrent la construction d'un barrage électronique compliqué, utilisant massivement les détecteurs et les mines récemment mis au point. Les membres de Jason firent même une estimation assez détaillée du coût d'un tel projet: "800 millions de dollars par an, dont la majeure partie serait dépensée en Gravel et

Sadeyes; 20 millions de mines Gravel par mois, 10.000 bombes BLU-26 B par mois".

BLU-26 B: bombe purement anti-personnelle, contenant entre 80 et 300 billes d'acier projetées avec une vitesse de l'ordre de 1000 m/s lors de l'explosion.

GRAVEL: mine anti-personnelle à grenailles. Dans les modèles récents employés au Viet-Nam, la grenaille est remplacée par des fragments de plastique transparent aux rayons-X, donc plus difficiles à détecter.

"Le général Westmoreland, chef d'état-major US pourrait être condamné et pendu si les standards établis après la deuxième guerre mondiale étaient appliqués à sa façon de conduire la guerre du Viet-Nam. Par la même logique, les chefs civils US pourraient être convaincus du même crime".

Tedford TAYLOR, procureur US à Nüremberg.

Les USA tentent de maintenir leur domination dans le Tiers Monde par un soutien massif aux régimes fascistes d'Amérique Latine et d'Asie, par une guerre de génocide en Indochine. Il faut que les universitaires qui col laborent à ce projet soient désavoués par la communauté scientifique.

MEMBRES DE LA DIVISION JASON DE L'I.D.A. (1970)

Luis ALVAREZ (prix Nobel)	Richard GARWIN	Wolfgang PANOFSKY
James BJORKEN	Murray GELL-MANN. (prix Nobel)	Allen PETERSON
Richard BLACKENBECLER	Donald GLASER (prix Nobel)	Malvin RUDERMAN
Luis BRANSCOMB	Marvin GOLDBERGER	Edwin SALPETER
David CALDWELL	Robert GOMER	Matthew SANDS
Kenneth CASE	Joseph KELLER	Charles TOWNES (prix Nobel)
Joseph CHAMBERLAIN	Henry KENDALL	Kenneth WATSON
Nicholas CHRISTOFILOS	George KISTIAKOWSKI	Steven WEINBERG
Roger DASHE	Norman KROLL	John WHEELER
Sidney DRELL	Robert LELEVIER	Eugene WIGNER (prix Nobel)
Freeman DYSON	Harold LEWIS	S. Courtney WRIGHT
Val FITCH	Elliot MONTROLL	Herbert YORK
Henry FOLEY	Walter MUNK	Frederick ZACHARIASEN
Edward FRIEMAN	William NIERENBERG	George ZWEIF
		Samuel TREIMAN

UNIVERSITE' PARIS
U.E.R. DE MATHEMATIQUES

Paris, le 28 juin 1972

M. Etienne Wolff
Administrateur du
Collège de France
Paris

Monsieur l'Administrateur,

Je voudrais vous faire part de mon sentiment sur les manifestations d'hostilité dont Murray Gell-Mann, invité par le Collège à donner des conférences sur les quarks, a récemment été l'objet de la part de scientifiques qui n'apprécient pas sa collaboration avec la Jason Division de l'Institute for Defense (sic) Analyses du Général Maxwell D. Taylor.

Si les milieux scientifiques, la science et la technologie font un peu partout l'objet, en Occident pour le moment, de très violentes attaques, c'est avant tout en raison des faits suivants: (a) depuis trente ans, sans remonter à Tartaglia, le progrès scientifique a été et reste systématiquement exploité, dans tous les domaines et particulièrement au voisinage des sciences physique, pour munir ceux qui dirigent les grandes nations industrialisées des armements les plus ignobles de l'histoire; cela concerne au premier chef l'Amérique, qui conserve dans ce domaine plusieurs années d'avance sur le reste du monde sous prétexte de "défense", et dont presque toutes les institutions scientifiques sont littéralement pourries depuis vingt ans par l'invasion des crédits militaires acceptés sans poser de questions; (b) ce sont avant tout des scientifiques américains et particulièrement des physiciens, et non pas des adjudants des notaires ou des sénateurs, qui sont à l'origine des nouvelles armes, qui en ont de leur propre initiative donné l'idée à leurs dirigeants politiques et militaires, et qui dans bien des cas en ont organisé eux-mêmes et très volontairement la mise au point; alors que la plupart des gens pensent que la civilisation consiste à tenter de minimiser l'impact de la guerre sur les hommes, ces scientifiques semblent attirés par la perspective de le maximiser; (c) la puissance militaire que confère à l'Amérique sa supériorité scientifique, technique et industrielle sur le reste du monde est utilisé depuis bientôt dix ans pour exterminer, à l'aide des procédés les plus scientifiques, tout ce qui vit en Indochine - hommes, animaux et plantes -, et jusqu'au sol même qui supporte la vie.

Tous ceux qui "perdent leur temps" à essayer de comprendre la situation s'accordent, je crois, penser que la transformation continuelle, et apparemment inexorable (on trouve toujours la main d'oeuvre nécessaire), du progrès

scientifique en instruments d'extermination de l'homme est au centre de la crise actuelle chez ceux qui la ressentent (s'il s'en trouve au Collège, on ne les entend pas beaucoup...). C'est particulièrement le cas des jeunes scientifiques qui, sans avoir pris part à cette évolution, n' supportent pas moins ses conséquences et désespèrent de pouvoir un jour faire de la physique proprement. L'idée d'inviter au Collège un membre de la Jason Division ne pouvait alors que constituer une provocation de première grandeur, et tout particulièrement de la part d'un établissement qui fait de "l'éthique de la connaissance" sa doctrine quasi officielle.

Cette invitation pose en effet la question de savoir si cette "éthique" est compatible avec la participation, dans des sites touristiques prudemment situés à 10.000 km du Vietnam, à des réunions scientifiques où l'on discute entre physiciens* et militaires des mérites comparés d'une campagne de bombardements sur le Nord Vietnam et de l'installation d'une barrière électronique qui permettrait de pulvériser automatiquement tout indigène passant à proximité d'un renifleur transzorisé. On hésite à envisager l'hypothèse d'une ignorance de la part des responsables du Collège: si l'histoire des relations entre scientifiques et militaires depuis 1940 ne suffit pas à les convaincre de la nécessité de s'informer, faudra-t-il l'apocalypse pour les réveiller ? Si par contre l'invitation a été faite en connaissance de cause et sans soulever de protestations à l'intérieur de l'établissement - vue de l'extérieur, l'institution que vous dirigez paraît assez muette...-, alors il y aurait intérêt à substituer à une "éthique de la connaissance" qui n'en est pas une la très simple morale qu'un de vos collègues biologistes de Harvard, Georges Wald, proclamait, à l'intention précisément des scientifiques, dans son intervention du 4 mars 1969 au M.I.T.: Science is for Life, not for Death. Cette morale, en effet, n'est sûrement pas compatible avec l'appartenance à la Jason Division (ni, bien sûr, à toutes sortes d'autres institutions, dont plusieurs sont françaises).

J'exprime donc, en conclusion, mon accord total, sur le fond et sur la forme, avec les manifestants qui ont causé à M. Gell-Mann quelques ennuis très mineurs; comme du reste les gauchistes parisiens ne disposent pas - fort heureusement pour leur santé morale - d'une barrière électronique au napalm détectant à l'odeur les membres actifs ou retirés de la Jason Division, M. Gell-Mann ne courait à aucun moment le risque de subir l'horrible sort d'un paysan vietnamien piégé par l'un des gadgets préconisés par cette belle institution. Si les manifestants, en violant la liberté académique, ont pu faire comprendre à M. Gell-Mann et à plusieurs autres personnes qu'il ne suffit pas d'être un brillant physicien pour avoir le droit de faire sans risques la guerre avec la peau des autres, ils ont, me semble-t-il, particulièrement bien occupé leur temps, même si les quarks en ont souffert.

Recevez, Monsieur l'Administrateur, l'expression de mes sentiments les plus dévoués.

Roger Godement

Vous pouvez naturellement diffuser cette lettre, en particulier parmi les membres du Collège puisqu'elle les intéresse directement. De mon côté, j'en communique des copies au Monde et à l'Observateur, ainsi qu'à diverses personnes - et notamment à M. Gell-Mann.

(x) Sur une quarantaine de membres, la Jason Division comprend au moins trente des plus célèbres physiciens américains, et aucun biologiste ou spécialiste des sciences humaines, à ma connaissance. Cette proportion de trente à zéro en faveur des physiciens se retrouvant dans les organisations qui ont conçu les premières bombes A et H par exemple, il serait peut-être utile de faire preuve de prudence dans le choix des conférenciers lorsqu'il s'agit d'un domaine aussi suspect que la physique.

LE MONDE, 24/7/72

Murray Gellmann et la guerre du Vietnam: une lettre du professeur Kastler.

M. Alfred Kastler, prix Nobel de physique, nous adresse la lettre suivante:

Au cours du mois de juin le Monde a relaté les incidents qui se sont passés au Collège de France: Murray Gellmann, prix Nobel de physique américain, avait été invité à y donner des conférences scientifiques. Il a été empêché de parler par un groupe d'auditeurs qui lui ont reproché d'avoir participé à des recherches scientifiques de caractère militaire ayant trouvé leur application dans la guerre du Vietnam.

Sans prendre position dans cette affaire, je voudrais, dans un souci de vérité, apporter un élément d'information: en 1970, lorsque le gouvernement américain a décidé l'extension de la guerre du Vietnam au Laos et au Cambodge, deux prix Nobel de physique américains, Owen Chamberlain et Charles Townes, ont pris l'initiative d'écrire au président Nixon une lettre publique lui demandant fermement d'en finir rapidement avec la participation des Etats-Unis à la guerre du Sud-Est asiatique. Ils ont proposé aux prix Nobel scientifiques américains de contresigner cette lettre, ce que quarante-trois sur cinquante-sept d'entre eux ont fait. Parmi les signataires se trouve Murray Gellmann.

THE "WAR PROFESSORS' POSTER" - Paris, June '72; Collectif Intersyndical
Universitaire d'Orsay "Vietnam-Laos-Cambodge"

WAR PROFESSORS

Luis ALVAREZ (Nobel Price)	Richard GARWIN	Wolfgang PANOFSEK
James BJORKEN	Murray GELL-MANN (Nobel Price)	Allen PETERSON
Richard BLACKENBECLER	Donald GLASER (Nobel Price)	Malvin RUDERMAN
Luis BRANSCOMB	Marvin GOLDBERGER	Edwin SALPETER
David CALDWELL	Robert GOMER	Matthew SANDS
Kenneth CASE	Joseph KELLER	Charles TOWNES (Nobel Prize)
Joseph CHAMBERLAIN	Henry KENDALL	Samuel TREIMAN
Nicholas CHRISTOFILOS	George KISTIAKOWSKI	Kenneth WATSON
Roger DASHEN	Norman KROLL	Steven WEINBERG
Sidney DRELL	Robert LELEVIER	John WHEELER
Freeman DYSON	Harold LEWIS	Eugene WIGNER (Nobel Prize)
Val FITCH	Elliot MONTROLL	S. Courtney WRIGHT
Henry FOLEY	Walter MUNK	Herbert YORK
Edward FRIEMAN	William NIERENBERG	Frederick ZACHARIASEN
		George ZWEIG

These Physicists have participated directly in the American war of genocide in Indochina: they were members, as of 1970, of the Jason Division, the technical advisory organ of the Pentagon.

Fields of research of Jason: chemical and bacteriological warfare, military applications of lasers, counter-insurgency techniques, electronic battlefield...

Right now, american pellet bombs are killing thousands of vietnamese peasants; the american bombing attacks on the dikes and hydraulic works of North Vietnam are threatening the lives of millions of people.

On June 14th, 1972, Gell-Mann was not permitted to give a talk in the College de France, Paris; instead, a group of scientific workers threw him out of the College.

PHYSICISTS ! DO NOT LET THE WAR PROFESSORS SPEAK OF "PURE" PHYSICS UNTIL THEY HAVE DENOUNCED THEIR PARTICIPATION IN JASON, AND CONDEMNED PUBLICLY THE AMERICAN WAR CRIMES !

Collectif Intersyndical Universitaire d'Orsay "Vietnam-Laos-Cambodge"

CORNELL UNIVERSITY
Laboratory of Nuclear Studies
Ithaca, N.Y. 14850

August 4, 1972

Dr. Daniel Schiff
Collectif Vietnam
Physique Theorique
Batiment 211
91 Orsay
France

Dear Dr. Schiff:

I have just become aware of a poster distributed by you which (amongst other things) alleges, at least by implication, (1) that I consulted for the Pentagon in 1970 or since and (2) that at some time or other I did some work connected with the Indochina war.

These allegations are false and I hope you are willing to distribute a correction to the poster. In actual fact: (1) I have not done any defense-related work in 1970 or since and (2) I have never (before or after 1970) worked, consulted or advised on any matter directly or indirectly related to the Indochina war. I am particularly unhappy at this slander of "guilt by association", since I already vehemently opposed the American involvement in Viet-Nam at a time when most Americans were not even aware of that involvement--and I have continued to oppose it ever since. To talk of "THE activities of THE Jason Division" is like accusing Benjamin Spock of "direct participation in genocide" because he is a member of "THE group of U.S. citizens" who have not renounced their citizenship.

I am surprised that you had not checked the accuracy of your allegations with me beforehand (nor even done me the courtesy of sending me a copy of your poster). I assume that various professors on your list are in a similar position to myself. The American aggression in Indochina is so reprehensible that one can make a completely honest case against it. You only weaked that case with Joe McCarthy tactics of slander and character assassination.

Yours sincerely,

Edwin E. Salpeter

EES:vhr

Professor Edwin E. SALPETER
 Laboratory of Nuclear Studies
 CORNELL UNIVERSITY
 ITHACA, N.Y. 14850

ORSAY, October 3, 1972

Dear Professor Salpeter,

Excuse me for answering with some delay to your letter of August 4th: I was absent from Orsay for two months and it is only this week that I discussed your letter with other members of the "Collectif Vietnam-Laos-Cambodge d'Orsay".

Concerning dates: we copied the list of members of Jason Division from "The University-Military-Police Complex: a directory and related documents" published by NACLA, Berkeley, 1970. In our poster this list, which includes your name, is followed by the sentences: "These physicists...were members, as of 1970, of the Jason Division". Do we understand correctly your letter in interpreting that you have been a member of the Jason Division some time before 1970 but not in 1970 or since 1970 ?

Concerning what you call our "slander of guilt by association" we read, in an I.D.A. recruiting booklet: "JASON is a unique research group made up almost entirely of outstanding university scientists who make an important part of their time available to I.D.A. "The Jason Division, a group of some forty scientists, has been created for a well-defined purpose; to provide the Pentagon with advice from competent scientists. We do not quite see how you can draw a comparison between such a restricted group, with a well-defined function, and belongs to the group of US citizens.

Concerning the activities of the Jason Division, they are mostly secret but we are aware of at least one example: in June 1966, McNamara organized a Jason Summer Study on "technical possibilities in relation with our operations in Vietnam...night vision devices, defoliation techniques, area-denial weapons" ("Pentagon Papers", Gravel Edition, vol.IV, Beacon Press, Boston, p.115). "The group of 47 scientists, representing the cream of the scholarly community in technical field, were briefed by Pentagon officials, worked for two months, and produced a report recommending, among other things, that be dropped on the Vietnamese "20 million Gravel mines per month, 10 000 SADEYE-BLU 26 B clusters per month" (idem, page 122).

From your letter, we understand that you did not attend this Jason Summer Study. However, the physicists who remained members of Jason when Jason was conceiving this escalation in the technology of mass murder, the physicists who, like yourself, "vehemently opposed the American involvement in Vietnam" but still worked for the Pentagon when the Pentagon was massively destroying people and land in Indochina, bear some responsibility.

If you wish to make it publicly known that, although a member of Jason until 1969 (?), you disagree with the role that Jason has played in the war in Indochina, there are many ways more effective than asking us to distribute

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a correction to our poster.

We have no doubt that, coming from an ex Jason member, a denonciation of the role of Jason physicists in the Vietnam war would be more accurate and therefore more efficient than coming from us.

Sincerely yours

for the "Collectif Vietnam-Laos-Cambodge d'Orsay"

Daniel Schiff

CORNELL UNIVERSITY
Laboratory of Nuclear Studies
ITHACA, N.Y.14850

November 1, 1972

Dr. Daniel Schiff
Laboratoire de Physique Théorique
et Hautes Energies
Université de Paris XI - Centre Orsay
91 Orsay
France

Dear Dr. Schiff:

Thank you for your advice that I should express in public my feelings about the Indochina war and about the workings of our Defense Department. That is good advice and I have done so, to some extent already before I stopped working for Jason and as recently as a letter two weeks ago to the President's Science Advisor. I have also worked through the Scientists for McGovern Committee, which I had hoped would have the greatest practical effect.

I was saddened but not entirely surprised that you refuse to help correct a false association of myself (and others) with the U.S. war effort. This false association can only help, not hinder, the U.S. Defense Department. I don't know your aims are, but I am reminded of a class of people I have encountered during our present election campaign: They profess to be against the U.S. involvement in Indochina, but their actions mainly display hate for "establishment liberals" in general and George McGovern in particular. We will lose on November 7th and, in spite of the electioneering stunt of a cease-fire, the massacre will presumably continue. The blood of the new victims will partly be on the hands of the anti-McGovern hypocrites.

Yours sincerely,

E.E. Salpeter

EES:vhr

C A R G È S E

At the Cargèse Summer School in theoretical physics (July 1972) one of the invited lecturer was S.Drell, a member of Jason . The students distributed a declaration, protesting against the presence of members of the Jason Committee (2)) . And then asked Drell to justify his choice and his activity in Jason. Drell refused to stop lecturing, before such matters be clarified; the students protested; the director of the Summer School, M. Levy, decided to end the School one week ahead of schedule (1)) .

Statement by a group of students of the 1972 Cargèse Summer School in Theoretical physics.

The 1972 session of the Cargèse (Corsica) Summer School in Theoretical physics ended one week ahead of schedule, as the administration of the School decided to close it upon occurrence of the following events. A group of students asked one of the invited lecturers to speak on his participation in the activities of the United States Defense Department's JASON DIVISION, of which he was a member as of 1970. The group objected to his lecturing in physics before having a discussion on the Vietnam Conflict and on the association of physicists to war related activities. This action was meant to express the growing apprehension and outrage felt by many physicists about the fact that some members of the physics community give advice on technological warfare to their government. In this case, it is the American government, which is engaged in the massive destruction of whole areas and the genocide of the civilian population, in Vietnam.

The events which lead to the closure of the School had to do with the presence, as an invited lecturer, of Professor Sidney Drell, from Stanford University. It is known that Professor Drell was in 1970 a member of the Jason Division (of the Institute of Defense Analysis), a committee composed of eminent scientists. It is also known that Jason has done studies, and given advice to the Pentagon on aspects of technological warfare. In the week preceding Professor Drell's first lecture, a declaration, the complete text of which appears below, was signed by 20 students (out of 30 present at the time) who thereby "...protest against the presence of American scientists in the Jason Division, and more generally state their vigorous opposition to the action of scientists lending their contribution to military activities of massive destruction."

Before the start of Professor Drell's first lecture, on July 24th, a few students took the initiative to write on the blackboards the following sentence, which had appeared, in a form applying to Jason members in general, on a poster issued by the "Collectif Intersyndical Universitaire d'Orsay "Vietnam Laos Cambodge" : "We shall not let the war professor Drell speak of "pure" physics until he has denounced his participation in Jason, and condemned publicly the American war crimes". Another student then got up to read the above mentioned declaration, and Professor Drell was invited to state his position on the issue raised in it. He said that he refused to participate in any discussion on this topic prior to his physics lecture. He declared his willingness to hold a private meeting afterwards, where such a discussion could take place. As it appeared however that a majority of students insisted on talking first about his activities as a member of the Jason Division, Professor Drell left the lecture hall. The director of the Summer School agreed with Professor Drell to find intolerable that the regular physics student lecture should be preceded by the discussion demanded by the students, arguing that this was a violation of academic freedom and he declared the school closed.

We, as a group representing a majority of the students attending this school, protest against the authoritarian way in which it was terminated.

CARGÈSE 2.

We also state our belief that there can be no artificial separation between a scientist's work in "pure" science and his contribution to activities related to the military, and we therefore deeply regret that no discussion of these most important issue developed between students as a group and the teaching members of the school.

Cargèse, July 27th, 1972

((2))

(Cargèse Summer School)

Declaration

At the present time, the United States armed force in Indochina are conducting a war where the most refined techniques are extensively used resulting in the massive destruction of whole areas and in the genocide of the civilian population. The technical war, to be fought with a reduced personnel, is based on devices such as: defoliants, night-vision system, seismic and acoustical detectors, emitters-receivers linked with computers located in Thailand, systems triggering bombing raids automatically, laser-guided bombs, etc....

Studies about the introduction of these techniques into actual warfare and about related strategical problems, have been conducted by the Pentagon with the help of the Jason Division, an advisory committee whose members are scientists considered as the most eminent in the academic community.

The under-signed participants to the 1972 Cargèse Summer School of Theoretical Physics, protest against the presence of American scientists in the Jason Division and most generally state their vigorous opposition to the action of scientists lending their contribution to military activities of massive destruction.

Cargèse, July 21st, 1972

V A R E N N A

At the Varenna Summer School in the History of Physics (August 1972) a Statement, signed by most of the participants, condemned the American colleagues that had worked for the military (in particular, by giving their time and intelligence to the Jason Committee) and asked for such a statement to be widely endorsed by other scientists and to be made known through the publications and the institutions of science ((1)) .

J.M. Lévy-Leblond enquired what the chances were of having the Statement published in the "Europhysics News" :

J.M. Lévy-Leblond (Paris) to H.B.G. Casimir (Eindhoven) - August 26, 1972 ((2))

H.B.G. Casimir to J.M. Lévy-Leblond - September 4, 1972 ((3))

The British magazine, Nature, refused to publish the Varenna Statement; it was, they said, "outside Nature's Parish" ((4)) .

The Varenna Statement was endorsed by the participants to the Trieste Summer Courses, the Annual Meeting of the Italian Physical Society etc.

((1))

Varenna Summer School in the History of PhysicsSTATEMENT ON VIETNAM

In recent weeks diplomats, journalists and responsible visitors to North Vietnam have reported the bombing of dykes by the United States Airforce. Officials of the U.S. government have acknowledged that several dykes have in fact been damaged by bombing. They have also admitted that the destruction of the system of dykes would inevitably cause the death of thousand of persons during the monsn season.

The last tactics in the American war has been made possible by a systematic application of scientific discoveries for military purposes. This has included the use of laser - bombs, antipersonnel shrapnèls and remote - control fire mechanisms.

These new tech - nologies have been fostered by scientists working in such projects as the Jason program of the Institute for Defense Analysis. These program have enlisted more than 30 toprank physicists, including five Nobel prize winners.

The operational use of scientific knowledge in the Indochina war is of particular concern to us as participant in the 1972 Varenna Summer School in the History of Physics. The application of science in modern society has been at the centre of our debates and we cannot overlook the professional participation of scientists in the waging of a war against the people of Vietnam.

Our discussion have convinced us that it is no longer possible to separate our attitude on these issues from our professional activities. This is why we express, as scientists and in the publications and institutions of science, our condemnation of those colleagues who have willingly involved themselves in the waging of this war: we ask that these issues be honestly faced within the scientific community , wherever it meets.

We also call for the immediate ending of the bombing of Vietnam and the total withdrawal of American forces in order to safeguard the independence and freedom of the peoples of Vietnam, Laos and Cambogia

(signed by 58 participants)

Varenna, August 12th, 1972

((2))

VARENNA 2.

UNIVERSITE' PARIS VII
LABORATOIRE DE PHYSIQUE THEORIQUE ET HAUTES ENERGIES

place Jussieu
75 - PARIS-V
Tel. 336.25.25

August 26, 1972

Prof. H.B.G. Casimir
Philips Research Lab.
Eindhoven, Pays-Bas

Dear Professor Casimir,

May I ask if you have arrived at any decision concerning the publication of our Varenna "statement on science and Vietnam" in the "Europhysics News" - a subject we had talked about.

I would find it very useful and a natural consequence of the statement itself (....."in the publications of science"....), although I understand that such a publication has to be carefully thought about.

Since I do not know whether the statement has been distributed in the School (I left too early), I am joining two in case they might be useful to you. Of course one could publish only a partial list of names (the Staff of the School and all speakers for instance), and give the total number of signatures (58).

May I also inquire about the forthcoming conference in Trieste ? Has anything been decided about it ?

I am sending under separate cover some papers which might perhaps be of some interest to you.

Will you please excuse my handwriting this letter ? As you may know, Paris is quite empty during the month of August and there are no typists around !

Sincerely yours,

J.-M. Lévy-Leblond, Prof.

((3))

VARENNA 3.

PHILIPS RESEARCH LABORATORIES
N.V. Philips' Gloeilampenfabrieken
Eindhoven Netherlands

4 september 1972

Monsieur J.M. Lévy Leblond
Physique Théorique
Université Paris 7
Place Jussieu
PARIS (5)

Dear Lévy Leblond,

Thanks for your letter and the reprints. For the time being I feel still very reluctant about publication in Europhysics News. Unfortunately at our last executive meeting no representative of the eastern countries were present. I hope they will be there at Wiesbaden but I think they would be strongly against publication. Also I must confess that I don't feel too happy about the actual text. First of all as I said during the meeting I do not like to condemn people, although I am willing to condemn actions. Secondly I feel that whereas a statement by physicists urging their colleagues to abstain from military work may have some effect, the statement by that same group that America should immediately withdraw his troops is somewhat ridiculous and therefore weakens the possible impact.

All the same I have been impressed by the Varenna discussions. I shall give an address on physics and society at the IUPAP meeting at Washington where I touch briefly but I hope sufficiently clearly on the issue of military work by academic people. I shall send you the text as soon as possible. I shall give essentially the same lecture at Wiesbaden.

I do not know what will happen at Trieste. Whereas at Varenna discussions of a more political nature could be included without disrupting the program and whereas both the IUPAP and the E.P.S. meeting have included lectures on physics and society I do not see that they could find their place in the Trieste program. I expect that there will be some manifestations in which it will be made abundantly clear that many of the younger generation violently disapprove of American behaviour in Vietnam and of the participation of academic scientists in advisory work to the military. Whether Americans present will want to reply, possibly during a meeting that clearly forms no part of the conference, I am unable to say, although it might be a satisfactory solution. I would be very sorry, indeed, if the meeting were seriously disrupted; although this might give satisfaction to some people, I do not think that it could have any favorable effect on the course of history.

With kind regards,

Yours sincerely,

Prof.Dr. H.B.G. Casimir

NATURE'S PARISH

All journals welcome vigorous correspondence columns, and Nature is no exception. Moreover, there is a sense in which uninhibited correspondence can enormously enhance the sense of community which journals and newspapers create among their readers and which, in the long run, is what they are for. In this spirit, it is entirely welcome that Nature should be used as a means of ventilating the accumulated grievances among British astronomers, which is why it is natural that Professor Burbidge's complaint two weeks ago about the organization of observational astronomy should have been published - and it is a little odd that so far it has evoked only the most muted (and verbal) comments. In exactly the same way, there is no doubt that comments on the organization of, say, the scientific literature should find their way into the correspondence columns of a professional scientific paper. Similarly, there have been (and will no doubt be again) disputes about the exact weight to be given to documents such as *The Limits of Growth*, the Club of Rome's first encyclical. And any subject which seems proper as a topic for editorial comment is by definition fair game for those who wish to protest their disagreement - it would be intolerable if journals assumed for themselves a freedom they denied to their correspondents. To be sure, there are good reasons why journals should eschew public discussions of how they manage their domestic affairs (a frequent source of frustration for would-be correspondents in Nature), but that it is not a serious cause of difficulty. With professional journals, however, there are constant difficulties in knowing where to draw the line between legitimate professional controversy and correspondence which seems to stray outside the bounds of what is seemly.

In the past few weeks, a number of correspondents have been asking why a journal which chooses to comment on the causes of, and the possible remedies for, the violence which led to the murder of Professor Aaron Katchalsky at Lod Airport earlier in the summer should not also comment on the conduct of the United States in south-east Asia. The short answer, which has since been challenged, is that the Vietnam war is "not part of Nature's parish" (see Nature, 238, 57; 1972). In this spirit, Nature has in the past few weeks declined to publish a moderate protest at the application of modern scientific techniques to the war in Vietnam which was drafted and signed by a distinguished group of scientists participating in the Varenna Summer School on the History of Physics. Some explanation of these decisions may be appropriate.

The first thing to be said is that there are important ways in which scientists, as professionals, can inform the making of public policy even in matters where political and military considerations are predominant. The history of the post-war world is an eloquent proof of that. It would have been intolerable if the testing of nuclear weapons in the atmosphere had not been recognized, on scientific grounds, as the indiscriminate hazard to human health which, mercifully, it has now been recognized to be. Similarly, the scientific arguments against the continued development of chemical and biological weapons (among which the assertion that their military usefulness has been exaggerated may have been the most influential) have had a powerful and beneficial influence. Professional scientists, arguing as scientists, have helped powerfully to draw attention to the dangers of the continuing gap between the rich and poor nations of the world. And where Vietnam is concerned, the arguments which have been levelled at the use of herbicides as military weapons are entirely proper, and seem also to have helped to moderate a thoughtless policy. Either by correspondence or by other means, it seems appropriate that a general scientific journal should take up cudgels in such a cause.

The difficulties arise with more general protests against the war in Vietnam. There are few who fail to curl with horror at the tales which have been brought back from places like My Lai but it is by no means self-evident that scientists are more affected than other groups of people, or that they have especially constructive safeguards to suggest against this kind of violence. May it not be that so long as there are wars, especially wars in which armies fight on foreign soil, the risk of violence like this can never be reduced to zero? And although it may be true that the weapons now being used by the United States Air Force in the battles over south-east Asia are more sophisticated than older weapons, and dependent in their conception on recent developments in technology -lasers for example-can it be seriously held that the innovations of military technology are in themselves a cogent reason why the United States should now withdraw from its involvement in Vietnam? Is it not more likely that the political arguments against the folly of this enterprise which seem now to be widely accepted even in the United States are still the more forceful? And if that is so, is there not at least a case for asking that discussions of the course that should now be followed by the government of the United States should be informed by a proper appreciation of the political consequences that would follow from a radical change of policy? The difficulty, of course, is that Nature, like at least some of its correspondents, is not properly equipped to follow the ramifications of such tortuous matters. And if it were, it would be a journal of a different kind. None of this suggests that contributors and correspondents to Nature should refrain from drawing attention to new developments in technology which are likely to influence political and military events, and it would of course be news of professional importance if, for example, the Royal Society were to utter a ringing declaration against the Vietnam war, but it does seem proper to draw the parish boundary at the point at which political discussions are bound to be incomplete and, even half-baked.

from NATURE vol. 239, September 22, 1972

T R I E S T E

In the Spring 1972, a Symposium on the "Development of the physicist's conception of nature" to be held in Trieste, 18-25 September, at the International Center for Theoretical Physics (ICTP) was widely publicized. Among the sponsors, no mention of NATO ((1)). But the official Nato Advanced Study Institutes Programme 1972 listed the Trieste Symposium as a NATO sponsored one. The organizers had therefore willingly lied. ((2))

The purpose of the Symposium was "to review, in historical perspective, the major conceptual structures of the physics of this century" ((3)). For that, they needed the collaboration of two Jason members, E.Wigner and J.A.Wheeler.

The French Collectif Intersyndical sent a letter to A.Kastler, who was also supposed to participate to the Symposium; there was the following exchange of letters:

D.Levesque (Collectif Intersyndical) to A.Kastler (Paris) - July '72 ((4))

A.Kastler to the Collectif Intersyndical - July 7, 1972 ((5))

D.Levesque to A. Kastler - July 21, 1972 ((6))

In the meanwhile, a group of students of Trieste University and of participants to Summer Courses at ICTP duplicated the French material on Jason and sent it, together with a short introductory letter ((7)), as individual first class mail, to about 300 physicists then at ICTP. Two weeks later, these Trieste to Trieste letters had not yet arrived at ICTP; misteries, perhaps, of Italian mail service ! The same group sent then a new copy of the introductory letter, together with a new short notice on Jason, asking physicists at ICTP to "see that your personal mail does not disappear" ((8)). These new letters were sent, in the presence of a qualified witness, on August 4 ; three days later, both the July 23 and the August 4 letters were found in the letter boxes.

A group of us at ICTP prepared a Statement on Jason and sent a letter around ((9)), asking our colleagues to sign the statement (the "Trieste letter" ((10)) and inviting them to meet at lunch time in order to discuss the issue. The Deputy Director of ICTP, Paolo Budini, decided by a public ukase ((11)) that he would "not authorise the use of the Centre's lecture rooms or halls for meetings such as the one scheduled for tomorrow, 18 August, at 13.30 in the terrace level classroom, which has clearly a political character" (the NATO sponsoring of the Trieste Symposium, which they had tried very awkwardly to hide, being evidently for Budini politically neutral). We insisted on the proposed meeting to take place, and we met indeed ((12)), if only in a dozen people.

The "Trieste letter" (which was eventually signed by many hundred physicists through the world) stimulated much correspondence. Jason members and their friends picked up a few inaccuracies (as "plastic fragmentation bombs" instead of "fragmentation bombs covered by plastics and producing plastic flakes instead of plastic pellets " ; or as "(Jason) advised on the development of plastic fragmentation bombs" instead of " Jason recommended that be dropped on the Vietnamese 10,000 SADEYE-BLU-26B clusters (i.e. steel fragmentation bombs) "). They escaped carefully any discussion about Jason activities and Jason members being war crime activities and war criminals.

Here are the letters I have knowledge of:

- P.Noyes (Stanford) to B.Vitale (Naples) - September 7, 1972 ((13))
- F.J.Dyson (Princeton) to B.Vitale (Naples) - September 12,1972 ((14))
- H.A.Bethe (Cornell) to B.Vitale (Naples) - September 12,1972 ((15))
- D.Schiff (Orsay) to H.A.Bethe (Cornell) - October 13,1972 ((16))
- H.A.Bethe (Cornell) to D.Schiff (Orsay) - October 20, 1972 ((17))
- R.Stora (Paris) to B.Vitale (Naples) - September 1972 ((18))
- M.Ruderman (Princeton) to B.Vitale (Naples) - October 4,1972 ((19))
- B.Vitale (Naples) to Jan Nilsson (Göteborg) - March 27, 1973 ((20))

(Jan was then trying to gather together the material presented here; I preferred writing to him instead of entering a personal, rather stupid polemics; the Jason members and their friends preferred to attack me personally for a clearly collective letter)

- M.Ruderman (Princeton) to B.Vitale (Naples) - October 5,1973 ((21))

Protest activity was being organized for the Trieste meeting. The British Society for Social Responsibility in Science sent a telegram of support ((22)); so did the French SNESup. ((23)) , the SNCS(FEN) ((24)) and the SNTRS ((25)) . The Trieste Collective that took charge of the organization of the protest movement issued an "open letter to the participants in the Symposium" ((26)) , distributed material on Jason ((27)) and invited everybody to a public meeting in Trieste ((28)) .

What happened at the inauguration day of the Symposium is shortly related by Le Monde ((29)) .

As an aftermath of the Trieste Symposium, a letter from H.Casimir (Eindhoven) to J.M. Lévy-Leblond (Paris) ((30)) .

((1))

SYMPOSIUM
ON THE DEVELOPMENT OF
THE PHYSICIST'S CONCEPTION OF NATURE

18-25 September 1972
Miramare, Trieste, Italy

SPONSORING COMMITTEE

Co-Chairman: H.B.Casimir (Eindhoven)
Eugene Wigner (Princeton)
Members: Edoardo Amaldi (Rome)
Pierre Auger (Paris)
Brian Flowers (London)
Rudolph Peierls (Oxford)
Francis Perrin (Paris)
I.I. Rabi (Columbia)
Gunnar Randers (Oslo)
Leon Rosenfeld (Copenhagen)
Abdus Salam (London and Trieste)
Leon van Hove (Munich and Geneva)

SPONSORING ORGANIZATIONS

UNESCO

International Center for Theoretical Physics
(I.A.E.A. & UNESCO) Trieste, Italy Center for
Particle Theory, The University of Texas at
Austin
Austin, Texas, U.S.A.

Institutes International de Physique et Chimie Solvay
Solvay
Brussels, Belgium

NATO ADVANCED STUDY INSTITUTES PROGRAMME 1972

The NATO Advanced Study Institutes Programme sponsors each year a number of international meetings and courses at which various scientific topics are presented and discussed at an advanced level. These meetings have in the past proved very successful in strengthening international contacts among scientists and in reviewing recent developments in many different sciences. It is hoped that the 36 advanced study institutes to be held in 1972 and listed below will continue this tradition.

While these activities are sponsored by NATO, the individual directors are entirely responsible for planning the scientific programme, selection of participants, etc. Many directors arrange for the publication of a detailed programme, admission forms, etc., and for publicity of the course.

Ref.No.	Director	Subject	Place	Date
44/72	Prof.J. Mehra The University of Texas Austin, Texas 78712, USA	Development of the Physi- cist's Concept of Nature	Trieste, Italy	

(3)

THE FUNDAMENTAL CONCEPTIONS OF TWENTIETH century physics have profoundly influenced almost every field of modern scientific thought and activity. Quantum Theory, Relativity, and the modern ideas on the Structure of Matter have contributed to a deeper understanding of nature, and then will probably rank in history among the greatest intellectual achievements of all time. The purpose of our symposium is to review, in historical perspective, the major conceptual structures of the physics of this century.

In the first of possible several symposia, we shall explore four major themes. It is planned to have the following lectures:

- 1 Space, Time and Geometry
 - The Astronomical Universe
 - The Astrophysical Universe
 - Nature and Structure of Space-Time
 - Theory of Gravitation
 - The Role of General Relativity
 - The Expanding Earth

- 2 Quantum Theory
 - Development and Problems of Quantum Theory
 - Development and Conceptual Problems of Quantum Mechanics
 - Relativity and Quantum Mechanics
 - Relativistic Equations in Quantum Mechanics
 - Radiation Theories of Planck, Einstein and Dirac
 - Development of Quantum Field Theory
 - Development of Quantum Electrodynamics
 - Mathematical Structure of Quantum Theory
 - Progress in Renormalization Theory

- 3 Statistical Description of Nature
 - Problems of Statistical Physics
 - Microscopic and Macroscopic Description of
Equilibrium Phenomena
 - Kinetic Approach to Non-Equilibrium Phenomena
 - Dynamics, Probabilities and Entropy
 - Biological Structure

- 4 Physical Description and Epistemology
 - Classical and Quantum Description
 - Subject, Object and Measurement:
 - Completeness of Description
 - Physics and Philosophy

We are fortunate in having very distinguished lecturers in the symposium, a number of whom have themselves contributed to the development of the conception of nature in the Twentieth Century. Invited lecturers include: J.S. Bell, N. Bogoliubov, H.B.G. Casimir, S. Chandrasekhar, P.A.M. Dirac, J. Ehlers, M. Eigen, B. d'Espagnat, M. Fierz, W. Heisenberg, W. Heitler, F. Hoyle, J.M. Jauch, P. Jordan, R. Jost, M. Kac, A. Kastler, A. Loinger, G. Ludwig, C. Møller, R. Peierls, L. Rosenfeld, I. Prigogine, A. Salam, J. Schwinger, D. Sciama, E.C.G. Sudarshan, A. Trautman, G. Uhlenbeck, L. Van Hove, B.L. van der Waerden, C.F. von Weizsäcker, J.A. Wheeler, E. Wigner and C.N. Yang.

TRIESTE 4.

In addition to the lectures mentioned under the four major themes, there will also be some special lectures: Superconductivity and Superfluidity (H.B.G. Casimir), Fundamental Constants and Their Development in Time (P.A.M. Dirac), Physics and Biology (M. Eigen), W. Pauli's Scientific Work (M. Fierz), Physicist's Conception of Nature (W. Heisenberg), Crucial Experiments in Quantum Phenomena (A. Kastler), Physicist's Conception of Nature (E. Wigner), Fundamental Aspects of the Symmetries of Nature (C.N. Yang).

Admission to the Symposium: To be admitted to the symposium, please apply to the Director as soon as possible but definitely before 15 July 1972. Applicants should specify: 1. Date and Place of Birth and Present Nationality: 2. Degrees and Academic Qualifications: 3. Principal Publications. 4. Present Position and Place of Work. A referee or head of the department should be requested to write in support of the application. Selected participants will be notified shortly after 7 August 1972. A fee of S 25.00 is payable at the time of registration for the symposium.

Funds for travel or living allowances are not available. Hotel accommodations (with varying facilities, from S 8.00 to S 15.00 per person) are available in Grignano and Trieste. Meals at reasonable prices will be available in the restaurant at the symposium headquarters. Further details will be sent to the participants on request .

Symposium Director:

Jagdich Mehra

Center for Particle Theory

The University of Texas at Austin

Austin, Texas 78712, U.S.A.

((4))

Collectif Intersyndical Laos-Viet-Nam-Cambodge
de la Faculté des Sciences d'Orsay
c/o D. Levesque
Laboratoire de Physique Théorique
Batiment 211
91 - ORSAY

Juillet '72

A Monsieur le Professeur
A. KASTLER

Monsieur le Professeur,

Connaissant votre action incessante en faveur de la paix et votre opposition constante aux armes nucléaires et à leur développement, nous avons été particulièrement frappée d'apprendre votre participation au Symposium de Trieste "On the development of the Physicist's conception of the Nature" du 18 au 25 Septembre 1972.

En effet, cette réunion est organisée avec la collaboration de physiciens éminents comme Mrs. les Professeurs E. Wigner et J.A. Wheeler, dont l'action passée et récente dans le développement des armes nucléaires et des armes nouvelles utilisées de façon massive dans la guerre du Viet-Nam (bombes au laser, mines anti-personnel, bombes à billes, etc...) auraient dû rencontrer de la part de la communauté scientifique internationale une large réprobation. Jusqu'en 1970, les Professeurs E. Wigner et J.A. Wheeler ont été membres de la division Jason de l'Institute for Defense Analyses (I.D.A.), organisme dépendant du Pentagone et dont le président est le général Maxwell Taylor, ancien ambassadeur U.S. à Saigon.

Le domaine de recherche de l'I.D.A. comprend: l'évaluation des systèmes d'armes, aspects techniques de la contre-insurrection, application militaire des lasers, etc...

La division Jason, dont ont également fait partie jusqu'en 1970 des physiciens comme MM. les Professeurs Murray Gell-Mann, Charles Townes, Luis Alvarez, s'est activement occupée de la guerre au Viet-Nam. Selon les "Dossiers du Pentagon", la session de l'été 1966 a été à l'origine du projet de la ligne Mac Namara (barrage de détecteurs électroniques appogés par des bombardements aériens). Ce projet, transformé ultérieurement en ce que les militaires américains appellent "the Electronic Battlefield", a été décrit en détail lors des réunions d'une sous-commission du Sénat américain (Hearings de la sous-commission du Sénat sur le champ de bataille électronique Nov.18-24 1970).

La même division Jason c'est également, en 1967, penchée sur les problèmes liés à la répression des mouvements d'opposition en Thaïlande.

Ils nous semble que les faits rapportés et la gravité de la situation au Viet-Nam, notamment la destruction des digues dans le delta du Fleuve Rouge exigent de la part des scientifiques soucieux de la paix un désarm

TRIESTE 6.

public des physiciens qui ont largement contribué à organiser la guerre de génocide en Indochine.

que
Nous espérons que vous comprendrez /notre démarche est guidée par le seul souci de renforcer l'action pour mettre fin à l'agression américaine, et nous vous prions Monsieur le Professeur, de croire à nos sentiments respectueux.

^r
Pour le Collectif Intesyndical
Laos-Viet-Nam-Cambodge
de la Faculté des Sciences d'Orsay

D. Levesque

P.S. Le Collectif d'Orsay a rassemblé une large documentation sur ces faits; nous sommes tout disposés à Vous envoyer des informations plus précises.

(5)

UNIVERSITE' DE PARIS
 ECOLE NORMALE SUPERIEURE
 LABORATOIRE DE PHYSIQUE

Collectif Intersyndical Laos-Vietnam-Cambodge
 c/o D. Levesque
 Laboratoire de Physique Theorique
 Bâtiment 211
91 - ORSAY

Chers Collègues,

Je reçois votre lettre non datée (mais reçus le 6.7.72). Je n'assisterai pas au symposium de Trieste, organisé pour célébrer le 70e anniversaire de DIRAC, mais mon absence à ce symposium est due à des raisons purement matérielles. En effet la date de ce symposium coïncide avec celle de l'Assemblée générale de l'Union Internationale de Physique à Washington D.C., à laquelle je participerai en tant que l'un des Vice-Présidents de cette union

Je n'approuve pas votre initiative de vouloir boycotter des conférences ou des réunions auxquelles assistent des scientifiques qui, par ailleurs, participent ou ont participé à des recherches militaires. Ou cela nous conduirait-il si on généralisait une telle attitude ? Car si on l'appliquait avec esprit de logique et d'impartialité, il n'y aurait aucune raison de limiter l'ostracisme à des citoyens américains. Devrai-je renoncer à rencontrer le physicien russe SAKHAROV sous prétexte qu'il est l'auteur principal de la bombe à l'hydrogène russe ? Alors que je serais heureux de le rencontrer et de le féliciter de ses prises de position courageuses. Dois-je vous rappeler qu'en 1970, quand les Etats-Unis ont étendu la guerre du Vietnam au Cambodge et aux Laos, les physiciens Charles TOWNES et Owen CHAMBERLAIN ont pris l'initiative de rédiger une lettre ouverte au président NIXON lui demandant d'en finir avec la guerre de l'Asie du Sud-Est. Ils ont proposé aux prix Nobel scientifiques des Etats-Unis de contresigner cette lettre, ce que 43 d'entre eux ont fait, et vous noterez que parmi ces signatures figure celle de Murray GELL-MANN.

Or vous proposez de mettre non seulement GELL-MANN mais aussi TOWNES à l'index !

Si votre initiative aboutissait elle aurait pour effet d'établir une ségrégation entre les scientifiques. Je pense personnellement que c'est dans le sens contraire que doivent aller nos efforts. Car le fait que les scientifiques de toutes les nations puissent se rencontrer est et reste un facteur d'entente et de paix. C'est une des rares occasions par lesquelles il est possible d'établir des ponts pour franchir des fossés. Il s'agit de renforcer ces ponts et non d'élargir les fossés.

Veillez croire, mes chers Collègues, à mes sentiments les meilleurs.

A. KASTLER

((6))

TRIESTE 8.

MONSIEUR LE PROFESSEUR A. KASTLER
1, RUE DU VAL DE GRACE

PARIS - 5°

ORSAY, le 21 Juillet 1972

Monsieur le Professeur,

Nous avons bien reçu votre réponse du 7 Juillet et nous vous en remercions. Il nous semble qu'il y a quelques malentendus (dont l'un est d'ailleurs dû à une maladresse de notre part) que nous souhaitons dissiper.

Vous écrivez que vous n'approuvez pas notre "initiative de vouloir boycotter des conférences". Dans notre lettre, nous parlions d'un "désaveu public des physiciens qui ont largement contribué à organiser la guerre de génocide en Indochine" et non de boycott. Est-ce l'idée de ce désaveu public que vous n'approuvez pas ?

Ce qui nous semble particulièrement grave, ce qui a motivé l'expression de notre désapprobation à Gell-Mann au Collège de France, ce n'est pas, comme vous l'écrivez, dans votre communiqué au "Monde", que Gell-Mann ait "participé à des recherches scientifiques de caractère militaire ayant trouvé leur application dans la guerre du Vietnam"; c'est qu'il ait travaillé directement pour le Pentagone, plusieurs semaines par an pendant neuf ans, acceptant les buts de la politique des Etats-Unis: maintenir la domination américaine dans le Sud-Est Asiatique, et participant activement à l'élaboration des moyens de cette politique: l'agression et la guerre de génocide contre les peuples qui refusent cette domination. Ce qui nous paraît grave, c'est que Gell-Mann, après avoir participé à une session de Jason de dix semaines en été 1966, consacrée à la guerre du Vietnam, ait rédigé avec les quatre autres membres du "Steering Committee" de cette session un rapport destiné à Mc Namara et recommandant le largage sur le Vietnam de

"20 millions de mines Gravel (mines antipersonnel) par mois; 25 millions de "button bomblets" par mois; 10000 bombes à bille par mois". (The Pentagon Papers, Gravel Edition, Vol.4, page 122).

Il nous semble, et peut-être étions-nous un peu imprécis à ce sujet dans notre lettre, que ce type d'activité est d'un genre différent de celle des physiciens qui participent à la fabrication et au développement des armes nucléaires (que nous réprouvons évidemment): ce n'est en effet plus d'une hypothétique "défense nationale" qu'il s'agit ici, mais de la perpétuation, par tous les moyens, de la domination des nations pauvres par les nations riches. Car, s'il n'était persuadé de la nécessité de maintenir une telle domination, qu'est-ce que Gell-Mann, physicien, serait venu faire à la session d'été 1967 de Jason, consacrée à la contre-insurrection en Thaïlande (cf "The Student Mobilizer" avril 1970; "New York Review of Books", 19 novembre 1970; "Le Monde" 11 juillet 1970) ? Est-ce en tant que scientifique que Gell-Mann est venu travailler pendant trois semaines cet été-là dans l'atmosphère studieuse d'un collège de la Nouvelle-Angleterre, sur les moyens de contrôler les paysans thaïlandais à accepter tel ou tel régime ? Quand Gell-Mann discute avec Maxwell Taylor et suggère que l'on étudie les effets comparés qu'ont sur les paysans thaïlandais différentes méthodes répressives, n'est-ce pas plutôt en tant que citoyen américain d'accord avec la politique néo-colonialiste de son pays, et

soucieux de servir cette politique le plus efficacement possible ?

Vous nous signalez que Gell-Mann a, en 1970, signé une lettre ouverte au président Nixon: cette lettre, tout en exprimant clairement une désapprobation des méthodes violentes d'opposition à la guerre, demandait avec une égale fermeté une fin rapide à la participation US à la guerre dans le Sud-Est Asiatique. D'après les extraits de cette lettre que vous nous envoyez, cette opposition (tardive, pour beaucoup des signataires) à la guerre du Vietnam, nous semble surtout exprimer l'inquiétude des Prix Nobel signataires devant les remous provoqués aux Etats-Unis par l'invasion du Cambodge; il est probable que la plupart des signataires ne sont guère émus, même tardivement, par ce qui est tout de même l'aspect essentiel de l'agression américaine: les dévastations que cette agression entraîne (massacres de civils, bombardements d'hôpitaux, emploi de défoliants tératogènes, etc...) sur les êtres humains et la nature en Indochine. Ainsi, plus de deux ans après avoir signé cette lettre, alors que la guerre de destruction en Indochine prend une forme encore plus horrible avec la destruction des digues, mais alors qu'aux Etats-Unis tout est calme, Gell-Mann ne pense pas utile de dire au Collège de France (ni, à notre connaissance, en aucune autre circonstance) l'inquiétude que lui inspire la destruction des digues du Nord Vietnam par les américains.

Devant la résistance acharnée des Vietnamiens, il est possible que Gell-Mann comme Mc Namara, pense aujourd'hui que la politique américaine au Vietnam est un échec, une "erreur". Il est possible que Gell-Mann, après avoir pendant longtemps pensé que les Etats-Unis réussiraient à briser la volonté des Vietnamiens par des raisons en somme techniques, que d'autres méthodes devaient être trouvées pour continuer à assurer la domination des Etats-Unis sur un certain nombre de pays du tiers-monde. Rien n'indique cependant que les physiciens de Jason aient changé d'avis sur ce qui nous semble être l'essentiel; ils restent d'accord avec les buts de domination de la politique américaine, ils n'objecteraient en rien à l'utilisation, pour assurer cette domination, de la guerre de génocide si cette guerre avait permis d'atteindre le but fixé: la fin de la résistance des Vietnamiens et l'établissement à Saigon d'un régime stable à la solde des américains. S'il était convaincu que la politique des Etats-Unis à l'égard des peuples d'Indochine est criminelle, comme ne cessent de le déclarer les représentants des peuples d'Indochine et les gens, de plus en plus nombreux à travers le monde, qui les soutiennent, Gell-Mann ne se contenterait pas de signer une lettre, lui qui a su donner beaucoup de son temps et de son énergie au service de cette politique: à l'instar d'Ellsberg qui a révélé les buts réels de la politique US en rendant publics les "Dossiers du Pentagone", ou à l'instar des "Vietnam Veterans for Peace", anciens combattants américains qui dénoncent les atrocités que les GI's ont commises au Vietnam, il pourrait par exemple dénoncer sans ambiguïté l'utilisation des armes bactériologiques ou chimiques ou de certaines armes antipersonnel particulièrement horribles, ce qui de la part d'un conseiller scientifique de Nixon, ne serait peut-être pas sans effet.

Vous écrivez que notre initiative (l'énoncé public des activités secrètes des physiciens de Jason) "aurait pour effet d'établir une ségrégation entre les scientifiques". N'y a-t-il pas là une logique qui rappelle celle dont certains faisaient preuve au moment de la guerre d'Algérie, qui accusaient les dénonciateurs de la torture de porter "atteinte au moral de l'armée française"? Car enfin, de cette ségrégation, qui vous semble responsable, les physiciens de Jason qui ont collaboré activement à la guerre du Vietnam ou ceux qui dénoncent cette collaboration ?

Vous écrivez enfin, à la fin de votre lettre, que "le fait que les scientifiques des toutes les nations puissent se rencontrer est et reste un facteur d'entente et de paix". Sans doute pour Gell-Mann, Wheeler ou Wigner, le fait de pouvoir discuter avec des physiciens européens de physique "pure", à l'abri de toute mise en question de leur activité politique, constitue-t-il en effet une source de tranquillité. Mais en quoi pour les Vietnamiens, qui reçoivent en ce moment même des bombes perfectionnées dont l'emploi a été recommandé par ces physiciens, ces rencontres constituent-elles un "facteur de paix" ?

Le 22 juin 1972, Monsieur Vo Van Sung, délégué général de la R.D.V. en France, déclarait: "Le peuple Vietnamien appelle les peuples du monde, les organisations internationales, les travailleurs scientifiques du monde, à agir en vue d'arrêter la main sanglante des agresseurs américains, et d'exiger énergiquement qu'ils mettent fin aux bombardements contre les digues ainsi qu'à tout acte de guerre contre le peuple Vietnamien." Devant le déferlement de la puissance meurtrière américaine en Indochine, c'est un sentiment d'impuissance qui saisit beaucoup d'hommes et de femmes. Les initiatives du Collectif Intersyndical d'Orsay ne sont évidemment, hélas, qu'un effort minuscule pour essayer de soutenir les peuples d'Indochine et d'arrêter l'agression américaine: envoi de livres à la bibliothèque scientifique de Hanoi, collecte d'argent pour l'envoi d'un microscope électronique à l'Institut d'épidémiologie de Hanoi et, récemment, interventions auprès des physiciens de Jason.

Nous espérons que vous voudrez bien excuser la longueur de cette lettre et vous prions de croire à nos sentiments les meilleurs.

Pour le Collectif Intersyndical Universitaire d'Orsay
"Vietnam-Laos-Cambodge"

Dominique LEVESQUE

(77)

Trieste, 23.7.72

To the participants to
the Summer School on
Global Analysis. I.C.T.P., July-August '72

Dear friend,

You will find here inclosed some material on the participation of one of the leading theoretical physicists, M. Gell-Mann, to the "advisory" activity in favour of the Pentagon.

You will see how M. Gell-Mann, together with a number of well known "intellectuals" (among which quite a few physicists, as E. Wigner, J. Wheeler, F. Dyson) has been active in the so called Jason Committee: a Committee dissatisfied with the traditional, repressive measures of the American foreign policy and convinced that a new, global policy of world control should be fostered by sophisticated, "scientific" military and social-science planning.

This makes M. Gell-Mann and the other members of such advisory Committees directly responsible for the most "scientific" forms of American aggression in Indo-China: fragmentation bombs (recently improved by the use of plastic pellets, to escape X-ray tracking in the body of the victims), laser-guided bombs and the like !

As a consequence of the publication of the enclosed material, M. Gell-Mann has been unable to lecture at Collège de France in Paris last June; as he refused to answer questions about his involvement in the Jason Committee, he was bodily expelled from the Institute. Now M. Gell-Mann, E. Wigner and J. Wheeler have been invited to Italy, Gell-Mann to Erice in July and Wigner and Wheeler to Trieste in September. Their activity is by now well known, the crimes they help committ are by now condemned everywhere in the world. All the same, they find people to invite them, in the name of a mystifying, completely false "internationality of Science".

It is important that the enclosed material be circulated, discussed by you, your colleagues and friends, your students back home. It could help clarifying the rôle of science and technology in the most advanced capitalistic countries; the danger, for the countries of new independence, of copying the capitalistic model of development (you can feel in every line of the minutes of the Jason meeting the deep scorn and mistrust of the capitalistic "intellectuals" of the Gell-Mann type for the poor citizen of the Indo-China); the need for vigilance and active fight against the colleagues who put their intelligence at the service of aggressive war planning.

Comitato Unitario di Base (Nucleo di Scienze)
Università di Trieste

(enclosed, the "Jason" material prepared by the French Collective,
Paris '72)

((8))

To the participants to
the Summer School on
Global Analysis - I.C.T.P., July-August '72

Trieste, August 4, 1972

Dear friend,

a couple of weeks ago we sent you (as "printed matter", in separate individual envelopes through the mail) some material on the participation of some of the leading theoretical physicists in the United States to an "advisory" activity in favour of the Pentagon. Among these physicists, S.D. Drell, F.J. Dyson, M. Gell-Mann, H.L. Golderberger, W.K.H. Panofsky, S.D. Trieman, S. Weinberg, J.A. Wheeler and E.P. Wigner have been active members of the "Jason Division" of the Institute for Defense Analyses; M. Gell-Mann is a member of the President's Science Advisory Committee. They are directly responsible for the most "scientific" forms of American aggression in Indo-China: fragmentation bombs (recently improved by the use of plastic pellets, to escape X-ray tracking in the body of the victims), laser-guided bombs and the like.

As a consequence of the publication of this material, M. Gell-Mann has been unable to lecture at Collège de France in Paris last June: S.D. Drell was not allowed to give a seminar in Rome a few weeks ago. All the same, E. Wigner and J. Wheeler have been invited to Trieste for the September meeting.

The materials we sent you has not reached you (or, at least, most of you) for reasons that we ignore: in the very short journey between Trieste Main Post Office and your mail boxes it has been either dispersed or subtracted.

We think that it is mainly up to you now to see that your personal mail does not disappear: we invite you therefore to press for a very rapid and completely satisfactory solution of this "mail mystery".

Comitato Unitario di Base
(Nucleo di Scienze)
Università di Trieste

Trieste 17.8.1972

Dear colleague,

enclosed is a copy of a statement, signed by most of the participants in the last session of the Varenna Physics Summer School, opposing the war in Vietnam and condemning the participation of many distinguished American scientists in Project Jason, which advises the United States imperialists in efficient methods of waging the war.

You may also have received a copy of the document by a University of Trieste student group, which gives details of the work by Murray Gell-Mann and other in Project Jason, and describes the action taken against Gell-Mann during his recent visit to Paris.

We think that these documents raise important issues, and not merely because two other Jason scientists, Wheeler and Wigner, will visit ICTP next month. Some of the questions that have occurred to us include:

is science "neutral" ? can "pure science" be separated from science applied to military ends ? or are we all servants of a dominant class, working directly or indirectly to help a system, based on capitalistic exploitation, to survive and develop ?

are only those who work directly for the American war machine to be blamed ? or are those who stand silently by, concurring in the war, comparably responsible ?

is it enough to take a personal stand against imperialism, while working along at global analysis, quantum field theory, relativity, or is some more organized response necessary ? can we take such a stand without jeopardizing our "freedom" to pursue our academic concerns?

is it not the responsibility of all of us, a small privileged elite from both "developed" and "underdeveloped" countries, to recognize that there are other problems for all scientists besides those which attract us here to Trieste ?

We feel that there is an urgent need to discuss such problem here. No doubt you have had opportunities to face particular aspects of them in your own country. PLEASE JOIN US to contribute your experience and learn the situation of others at a meeting in the

TERRACE LEVEL CLASS ROOM ON FRIDAY NEXT 18 AUGUST AT 1.30 p.m.

We expect that so many issues will be raised then that we shall have to continue later in the day.

Jonathan Ashmore (London) - Ennio Candotti (Napoli) - P. De Mottoni (Roma) - G. Gallavotti (Roma) - O. Marle (Besancon) - K.K. Mukherjee (Los Angeles) - C. Palmieri (Napoli) - Felix Pirani (London) - Tim Poston (Warwick) - A. Simoni (Napoli) - K.S. Sood (London) - J. Stachel (Boston) - B. Vitale (Napoli) - Chandan Vora (Genova) - P. Walters (Warwick).

enclosed the "Trieste letter".

The "Trieste letter" :

Trieste 25.8.1972

From the 18th to the 25th of September there will be a meeting at ICTP (Trieste) on "Development of physicist's conception of nature", sponsored by, among other organisations, NATO (see NATO 1972 list of NATO Advanced Study Institutes Program, n.44/72). The participants, selected by the traditional mysteries from the élite of the scientific community, will discuss the growth of physics in the last half century: the focus will be on the "world view" of the physicists, and the way it has developed.

The distinguished physicists speaking will include Wheeler and Wigner, whose "world view" includes a view of the Vietnam war that permits them to serve on the Jason Committee. This is a body that has, among other activities, advised on the development of plastic fragmentation bombs (rendering X-rays useless - an essentially anti-personnel device, aimed at producing cripples) and the laser guided bombs that are being used to destroy North Vietnamese dikes, which if successful will kill two million civilians.

Many scientists find it no longer possible to distinguish their "purely scientific" activities from their institutional role: whether or not this distinction ever did mean anything, it is breaking down. In Paris, Gell-Mann (another Jason member) was to speak on a "purely scientific" subject but scientists who no longer held to the distinction attempted to question him on Vietnam - originally, with no intention of disruption: the feeling was that this was a matter on which the scientific community had the right to be informed about the activities of one of its principal representatives, which is one of the roles of Nobel prizewinners. Those who hold to the existence of the distinction may feel that the prevention of Gell-Mann's of his announced talk, on his refusal to discuss Vietnam, was wrong in their terms.

However, concerning the Trieste meeting, there can be no such question: any physicist who does not include Vietnam in the world, when he is actively affecting that war by such institutions as Jason, is proclaiming a "world view" that has dropped all pretension to honesty. And the requirement of honesty is fundamental, for any view to science.

It is therefore essential that these matters should be discussed at the Trieste meeting: any attempt to prevent such discussion (and in particular the questioning of those who have taken a position on these issues by participation in Jason) is itself not so much a disruption as a rendering meaningless of the entire proceedings.

We thus demand that the meeting discuss the "neutrality" of science and the role of institutional science in the military-industrial complex of the big powers, taking advantage of the presence of the expert witnesses who have direct experience of this involvement.

If you agree with the above letter, please sign it and send it to:

Bruno Vitale, Istituto di Fisica Teorica, Mostra d'Oltremare, pad.19
80125 Napoli-ITALY.

The signatures thus collected will be eventually sent to the Director of the Symposium and the Director of ICTP.

(more than 450 signatures - mostly by European physicists - were collected).

((11))

TRIESTE 15.

TO ALL SCIENTISTS AND STAFF OF THE ICTP

In connection with the circular which has been distributed today regarding the Vietnam war and Project Jason, signed by some scientists present at the International Centre for Theoretical Physics, I wish to point out that the ICTP, being an institution belonging to the United Nations international agencies (UNESCO and IAEA) must adhere to the principles of the United Nations and as such must not enter into matters of internal policy of the U.N. Member States. Only in this way can the ICTP achieve its aim of being a truly international scientific institution.

For this reason, I will not authorize the use of the Centre's lecture rooms or halls for meetings such as the one scheduled for tomorrow, 18 August, at 13.30 in the terrace level classroom, which has clearly a political character.

I take this opportunity to ask the scientists present at the ICTP to refrain from political activity of any sort inside the premises of the ICTP, activity which, while pleasing some, and perhaps offending others, may only contribute to ruining the atmosphere of peaceful scientific international collaboration of which we are very proud. I hope our guests will understand and collaborate.

Those who wish for further explanations and discussions, and in particular the scientists who signed the above-mentioned circular, will be welcome in my room at 17.30 today, 17 August.

17 August 1972

Paolo Budini
Deputy Director

((12))

TRIESTE 16.

Trieste 18.8.72

Informal, unofficial discussion gathering

We accept that the discussion projected for 1.30 p.m. today is not under the aegis of the ICTP: we intended this to be clear from our original circular, it has been made very clear by Professor Budini, and we reaffirm it here.

We do not accept that the war in Vietnam is a "matter of internal policy" of any member state of the U.N. in any sense which does not include the setting up of an International Centre for Mathematics (the subject of propaganda three days ago, circulated by the authority of the Centre).

We propose to gather, as private individuals and scientists, for friendly discussion, in front of the terrace level seminar room at 1.30 p.m.: we, with whatever friends join us, will then discuss any questions of common interest wherever convenient.

the organizing group

TRIESTE 17.

((13))

September 7, 1972

To Bruno Vitale

Dear Bruno,

Sorry that I will not be able to talk recent developments over with you in person, but I strongly approve the raising of the Jason issue in the physics community and return the letter you sent with my signature. I asked Marty Perl and Sam Berman to contact you at the meeting and help you get in touch with any potential support for your position there I fear there will be little enough.

On the factual level, I somewhat doubt that Jason was directly involved in the infamous plastic bombs, but suspicion is certainly justified. So long as they continue to associate in secret with military arms of the US Government, and refuse to dissociate themselves publicly from its policies, I feel we are justified in requiring them to establish their own innocence: normally, of course, I am willing to grant the presumption of innocence to any individual, but on the assumption that if there is reasonable grounds for charges being brought, they will result in a trial, We are still a long way from setting up trials for US war crimes whose decisions can be unforced, and meanwhile must use other means.

You will be interested to learn that at the UCLA Conference on Few Particles Problems last week, Gerry Brown took advantage of being the banquet speaker to devote his talk to the Jason issues, and in general to at least imply support for the actions in Europe this summer. So far as I know this is the first time an issue has been raised in any "official" way at an international conference, and should give us a useful precedent for pushing on vigorously.

I am still trying to catch up on things after the UCLA Conference, so this has to be brief. I enclose some recent writing of mine, which I hope will be of interest.

Power to the People

PIERRE NOYES

Department of Physics
Stanford University

TRIESTE 18.

((14))

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY

September 12, 1972

Dear Vitale:

in

I am sorry I will not be Trieste on September 18 to contradict the lies and distortions contained in your letter of August 25. I have been for 10 years an active member of JASON and an outspoken opponent of American policy in Viet-Nam. I believe that the work I have done as a JASON member has helped to strengthen the voice of sanity inside the American government. If you sincerely want to bring the war in Viet-Nam to an end, you will not waste your time and energy in disrupting scientific meetings. Such disruptions may be satisfying to your ego but they have no effect on the war.

Yours truly,

Freeman J. Dyson

CORNELL UNIVERSITY
LABORATORY OF NUCLEAR STUDIES
ITHACA, N.Y.

September 12, 1972

Dear Professor Vitale:

I just received your circular letter dated 25 August, concerning discussion of political matters with American scientists at the forthcoming meeting at ICTP. I am not signing this letter, but I am disturbed by many of the thoughts expressed in it.

1. I suppose that you, and many other signers of your letter, are aware of my own activities to bring about reduction of strategic armaments. I was a member of the "Conference of Experts" in Geneva in 1958, which was the start of negotiations which finally led to the limited ban on nuclear weapons tests in 1963. During that period I also wrote articles on this subject, in addition to my activities with the U.S. government. In 1968, I wrote an article in Scientific American against the anti-ballistic missile which was widely quoted and used in the opposition against the U.S. development of that weapon.

2. Discussion of political matters, including the involvement of scientists in advice to the military, is in my opinion desirable in a meeting such as the forthcoming one in Trieste. However, any such discussion should be carried on in a special session, set aside for this purpose. There is precedent for that at Trieste when in the summer of 1968 the political unrest in France and other countries was discussed in two special meetings. But I strongly oppose the use of a scheduled scientific talk for purposes of such a political discussion.

While the evidence in Paris with Professor Gell-Mann may have been as you describe (my information says otherwise), the experiences of Professor Sidney Drell, both at Rome and Cargese, were certainly very different. In both places, Dr. Drell declared immediately his willingness to discuss the political issues, including his membership in Jason, in a meeting with interested students and others which would be especially scheduled for this purpose. He refused to divert the time set aside for his scientific lecture to these political purposes. He was not permitted to speak in either place. This, I believe, is most objectionable behavior on the part of the students and others who wished the political discussion, and completely correct behavior on the part of Dr. Drell. Moreover, I can testify on the basis of frequent meetings with Dr. Drell, that he is a genuine "dove" who surely did not deserve this treatment.

I certainly hope that you and your co-signers are thinking of an orderly discussion at Trieste, in a session separate from the scientific sessions.

3. The Jason group is being completely misrepresented in your letter, as well as in other similar statements. Jason has members of all political opinions, including Drrell who is a "dove" and Wheeler who is a "hawk". I was associated with Jason, as an adviser, only in its early days, many years ago; so I cannot with authority speak of the present composition. But I know a large number of the Jason group who are devoted both to an end of the war in Vietnam, and to strict arms control and reduction of armaments.

It would be unfair to the members of Jason, and to other American scientists who do some occasional consulting for the military establishment, to take the opinions of Drs. Wheeler and Wigner as typical of the Jason group or of these other scientists. In contrast to the great majority of American scientists, including those consulting for Jason, Drs. Wheeler and Wigner still support the American war in Vietnam. While it may be interesting to have a discussion with them, it would certainly not give a fair picture of the opinion of these other American scientists.

4. The more lurid allegations of the activities of the Jason group are simply false, according to my information. I especially inquired from a present member of Jason who was recently a member of the Jason Steering Committee, and who, in turn, has made inquiries from many other scientists who were formerly involved in the direction of the Jason activities. According to all these witnesses, Jason has never worked on the development of plastic fragmentation bombs. If such bombs are used, and I have absolutely no information whether they are or not, Jason apparently had no part in developing them or giving advice on them.

Concerning the laser guided bombs, apparently one member of Jason, in his private capacity as a consultant to the Defense Department, and not as a member of the Jason group, did advise the Defense Department. I find that the use of these bombs had been misrepresented in your letter.

As you say in your letter, the requirement of honesty is indeed fundamental to science. This means that the facts, including those about Jason, must be carefully investigated before they are being publicly pronounced, and must then be correctly stated.

Yours sincerely,

Hans A. Bethe

UNIVERSITE' DE PARIS XI - CENTRE D'ORSAY
LABORATOIRE DE PHYSIQUE THEORIQUE ET HAUTES ENERGIES

13 Octobre 1972

Dear Professor Bethe,

I have read your letter adressed to Bruno Vitale, and distributed to all the participants to the Symposium at Trieste, and after reading it I was wondering whether we are not progressively losing any sense of reality; imagine a discussion on the chemists who advised the Nazis as to which gas to use in the gas-chambers, and people starting to distinguish between those who worked on "cyclon A" and those who worked on "cyclon B".....

It seems that, concerning the overwhelming atrocity of the sufferings imposed on the Vietnamese by the US bombs, we are no longer horrified: it may be that we have been given so many figures, so many technical details that we can no longer think about the human beings on which all these bombs fall. Or is it, as Chomsky puts it in "American Power and the New Mandarins", that we have become totally immune to the sufferings of others ?

You inform Vitale that Jason has never worked on plastic fragmentation bombs. Is this really relevant ? Should one not rather be appalled by scientists recommeding that be dropped on the Vietnamese "10000 SADEYE-BLU-26B clusters" (i.e. steel fragmentation bombs) per month (Pentagon Papers, Gravel edition, vol. IV, page 122) ?

To quote Chomsky again: "By entering into the area of argument and counterargument, of technical feasibility and tactics, of footnotes and citations, by accepting the presumption of legitimacy of debate on certain issues, one has already lost one's humanity." Perhaps moral statements of that kind can awaken us, could have helped awaken the physicists at Trieste, more than the technical information contained in your letter.

Sincerely yours,

Daniel SCHIFF

P.S. - Please find enclosed an - indirect - reference to plastic fragmentation bombs, I shall try to find the proceedings of the conference on medicine and the war in Indochina" (Paris, December 1971) and to send you any relevant information contained therein.

CORNELL UNIVERSITY
Laboratory of Nuclear Studies
ITHACA, N.Y.

October 20, 1972

Dear Professor Schiff:

Thank you for your letter of 13 October concerning my letter to Vitale. If it had been this letter from you, rather than Vitale's, which asked for a discussion of moral issues at Trieste, I would have wholeheartedly agreed.

Certainly the main issue is that of our humanity. You must know that most American scientists are fully aware of the suffering of the Vietnamese. As one expression of this awareness, Professor Raphael Littauer of our department conducted a thorough, factual analysis of the American air war which has received wide attention and much favorable comment, e.g. in the New York Times. Littauer's aim was to make the American people aware that the reduction of American casualties has not ended the misery for the Vietnamese, and that American air power is continuing to devastate their country and their people.

There are a few American scientists who will disagree with this point of view, and the recommendation which you quote in your letter may have come from such scientists. I mentioned plastic fragmentation bombs only because they figured prominently in Vitale's letter; otherwise, I would much rather discuss the general issues than specifics.

Among other things, I objected to the following points in Vitale's letter:

- 1) To consider Wheeler and Wigner as representatives of American scientists when in fact they stand on the far right,
- 2) To identify the Jason group with support for the Vietnamese war, when in fact nearly all Jason work has been on long-range, strategic armaments for a nuclear war which we all hope will never come.
- 3) To make specific accusations against Jason which are in fact unfounded.

A calm and general debate on questions of morality would certainly be welcomed by me, and by many others including, e.g., Sidney Drell. In such a debate we should probably find that our opinions do not differ much. But confrontations of the type Drell and Gell-Mann have suffered last summer will get us nowhere. I hope that sometime in the near future factual discussions of moral problems of scientists can take place, in which neither the participants nor the issues are prejudged from the beginning.

Yours sincerely,

Hans A. Bethe

CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE
Centre de Physique Theorique

(September 1972)

Dear Vitale,

Thank you very much for sending the letter concerning the Trieste meeting, which some of us signed. I have not, and I think I owe you some explanations.

I find the Viet Nam war as sad and wasteful as many others do, I am convinced that war crimes are being carried out here, some of them obvious and spectacular, some others possibly less apparent. Forgetting about the size, it is as unbearable as the Algerian war used to be, at least for us.....

I am not however ready to yield any little bit of academic freedom because my conscience political or otherwise hurts. Any attempt against the right of expression reminds me too bad memories. I cannot approve that a lecturer who has been invited by some academic instance to speak on a technical subject be asked to give a public account on his political, religious or otherwise behaviour before he is allowed to speak on the subject he was expected to speak on. This has happened however when M. Gell-Mann was to speak at the college de France in Paris, and, to some extent, if my understanding is correct, to S. Drell in Cargèse. I do not believe that any member of any national defense committee in any country is free to tell publicly what has been going on when he was sitting in such a committee. And I believe he would be even less encline to do so if he is subject to an ultimatum under a short notice of time.

Now, I come precisely to the terms of your letter. I believe that the constant happening of atrocious wars e.g. the Viet Nam war should be a major concern of the scientific community and should precisely be discussed in such a distinguished gathering as is going to take place in Trieste. However an ultimatum imposed on E.P. Wigner and J.A. Wheeler under such a short notice as less than three days to speak about their action within the Jason committee, I find unfair and unbearable even more so if it is a sine qua non condition to speak about anything else. I would very much doubt that any of them would refuse to express their views about in particular the Viet Nam war in so far as they are technically allowed to do it, bound as they may be by national defense secret, but I would personally recognize they would have a right not to do so.

If such actions as that in which you are participating, following those in Paris and Cargèse continue to take place, I will seriously consider withdrawing from any kind of organization of series of seminars, summer schools or other types of scientific meetings because I cannot consider

seriously checking on a lecturer's political or otherwise activities before inviting him on the account of his scientific knowledge. Such a decision would be a way of protesting against a process which I judge as harmful for the efficiency of the scientific community as that through which some of its members withdraw from it to support the incriminate' committees, if being understood that our efficiency should in my opinion preferably be used to improve the living conditions of mankind than to destroy it.

Although I disapprove your method of action because it endangers scientific life, I wish your success in any type of action which could have a real effect on bringing human peace back to Vietnam and other unfortunately hot spots of the earth as well as those where unwanted order is imposed by a totalitarian regime.

I am,

Sincerely yours,

R. Stora

P.S. - You may consider this as an open letter. My apologies for such a hasty writing.

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON

October 4, 1972

Professor Bruno Vitale
Istituto di Fisica Teorica
Mostra d'Oltremare pad.19
80125 Napoli, Italy

Dear Professor Vitale:

I have received from Hans Bethe a copy of the open letter "Trieste 25.8.72" which, unfortunately, contains a false description of activities of the Jason group. Particularly regrettable is your publication of a false rumor about a supposed Jason involvement with "the development of plastic fragmentation bombs." If this were true, most of us would have resigned long ago and would do so now. If you possess evidence to support this claim, let it be seen. If you do not, then the only honest response is to circulate a retraction among the same group which received your open letter.

That membership in the Jason group implies support of the Vietnam War is simply untrue. Whatever their motives, only a small number in the group ever worked on the war or counterinsurgency problems. (All such work in Jason, incidentally, ceased some years ago). Most of us have strongly and openly opposed this war long before it became so fashionable to demonstrate against it here and abroad. While continued membership in Jason for those of us who feel this way has been and is a complicated question clearly worth discussing openly, a dishonest presentation of it divides colleagues to no purpose.

Sincerely yours,

Malvin Ruderman

MR:eg
cc: Prof. H. Bethe

Jan Nilsson
Göteborg

Dear Jan,

The letter we sent around last August about the NATO-sponsored Trieste meeting contains the following sentence: "(Jason) is a body that has, among other activities, advised on the development of plastic fragmentation bombs....".

H. Bethe replied that "Jason has never worked on the development of plastic fragmentation bombs". M. Ruderman particularly regretted "a false rumor about a supposed Jason involvement with the development of plastic fragmentation bombs"; he then continued: "If this were true, most of us would have resigned long ago and would do so now".

I did not reply personally to these letters, as I thought that the discussion about Jason and the Trieste meeting had not to become an exchange of personal letters about details, willingly provoked to obscure the main issues. I want however, while helping you to prepare the dossier about Jason and Trieste, to put the record straight about what we knew on the plastic fragmentation bombs at the time the letter was written and about what we know now. I shall also try and explain why I shall be eagerly awaiting M. Ruderman's resignation from Jason.

Our first information about plastic frag bombs came through a letter by Val Woodward, reporting his visit to Hanoi on the Science for Viet-Nam Newsletter nr.3 (September '71): "As far as I could tell, the members of the Commission (i.e. the Commission for the investigation of Crime of War in Indochina) knew little if anything about plastic pellets, except that they had been used".

There has been since a call from Stephen Rose to the Minneapolis SfVN Collective (SfVN Newsletter nr.9, October '72); he spoke of "a plastic, anti-personnel weapon they now have in possession..... The bomb has a green, plastic skin, without seams, and a steel shell. The bomb of course will release plastic and steel fragments of irregular size and shape.... The plastic frag bomb goes by the code number L-3, and is about 50% larger than earlier frag bombs".

The most recent report on plastic fragmentation bombs can be found in a publication by the Swedish Institute of International Affairs: Antipersonnel Weapons. On page 43: "Plastic fragments. In some more recent versions of the above type of anti-personnel bombs steel pellets are cast into a plastic casing. A wide variety of mines is now made with plastic rather than metal casings, both in order to make them less susceptible to detection by magnetic detectors and no doubt for reasons of ease of production and economy. As a result, wounds may be caused by the fragments of the plastic casing. According to recent reports, such fragments may be radiotranslucent, that is, they

are not detected in the body by X-rays. Consequently they are difficult to locate and extract, an additional source of unnecessary suffering".

It is therefore clearly established that fragmentation bombs producing plastic flakes have been used in Vietnam; that there were no plastic pellets seems immaterial.

Jason is directly responsible for the development of anti-personnel devices (see the Pentagon Papers, Gravel edition, vol.IV, p.115,117), as an efficient alternative to the traditional bombing strategy. Gravel mines, Button bomblets, BLU-26B bomb clusters, Flechettes (together with the full development of the electronic battlefield) were the direct result of Jason's "advice".

Should H. Bethe, F. Dyson and M. Ruderman be surprised if someone at the Pentagon thought better and added an extra plastic casing ? Could this not have been predicted by the very brilliant brains that joined their efforts in Jason in order to help the American government to win the war ? Could they really believe, with F. Dyson, that they could "strengthen the voice of sanity inside the American government" ? Would they have been paid for that ?

Very friendly yours

Bruno Vitale

October 5, 1973

Dear Dr. Vitale:

Like you I was not a participant in the so-called Jason Vietnam Studies and must rely on secondary sources. The relevant sentence in your letter to Dr. Nilsson is the accusation:

"Jason is directly responsible for the development of anti-personnel devices (see the Pentagon Papers, Gravel edition, Vol.IV, p.115,117).... Gravel mines, Button bomblets, BLV-26B bomb clusters, Flechettes....were the direct result of Jason 'advice' ".

According to M.L. Goldberger in a widely circulated letter all of these devices were already developed at the time of the study. According to the Pentagon Papers, a subgroup within Jason advised only on a particular deployment of them. My reading of the Pentagon Papers does not support your interpretation. After conversation with Goldberger and others I remain quite convinced that the statement you circulated at Trieste that "(Jason) is a body that has among other activities advised on the development of plastic fragmentation bombs" is entirely unwarranted. Neither the Pentagon Papers nor your letter offers evidence to the contrary. (Even if every statement in your letter were true it would not warrant the statement you published.) I hope that you will realize that an error has been made in publishing it. As an honest man I hope you will retract it.

Sincerely yours,

Malvin Ruderman

14.9.1972

provenienza	data	ora
LONDON/LB/TF	14	14.00

NATIONAL COMMITTEE OF THE BRITISH SOCIETY FOR SOCIAL RESPONSIBILITY
IN SCIENCE AGREED TO FOLLOWING MESSAGE STOP WE SUPPORT YOUR ACTION
AT THE FORTHCOMING TRIESTE MEETING STOP THE MISUSE OF SCIENCE IN
VIETNAM CANNOT BE EXCLUDED FROM DISCUSSIONS OF THE WORLD VIEW OF
PHYSICISTS STOP THE EXTENT OF INVOLVEMENT BY PHYSICISTS IN THE WAR
MUST BE MADE KNOWN STOP WE COMMEND YOUR ACTION TO AFFIRM THESE
PRINCIPLES STOP MESSAGE ENDS STOP COMMITTEE WILL ALSO GIVE MAXIMUM
PUBLICITY TO YOUR ACTION STOP PLEASE SEND FULL DETAILS OF EVENTS
FOR LATER PUBLICATION OF ARTICLE IN OUR JOURNAL

le 14 Septembre 1972

DECLARATION du BUREAU NATIONAL du S.N.E. Sup.

à propos de la réunion des physiciens à Trieste
(18 au 25 Septembre 1972)

Du 18 au 25 Septembre, des physiciens réunis à Trieste, à l'initiative notamment de l'O.T.A.N., s'interrogeront sur leur "conception du monde", à la lumière du développement de leur discipline au cours des 50 dernières années.

Parmi les présents, des physiciens américains qui ont une conception du monde telle qu'elle les a amenés à participer au Comité Jason. Ce braintrust de scientifiques a recommandé le recours aux ^{armes} de guerre anti-personnelles utilisées quotidiennement au Vietnam par l'armée américaine.

Le S.N.E. Sup. rappelle à ce propos:

- que l'O.T.A.N. est un bloc militaire constitué à des fins agressives, dont toutes les forces éprises de paix ne peuvent que réprover l'activité et souhaiter la dissolution,

- que les U.S.A. -principaux responsable de la création de l'O.T.A.N. sont engagés depuis dix ans en Indochine dans une guerre d'agression contre des peuples qui luttent pour leur indépendance et la paix. Cette agression, toujours tenue en échec, se poursuit qu'au prix d'une escalade constante de destructions et de massacres menée avec les ressources de la technologie la plus perfectionnée (destruction du milieu naturel par les agents chimiques, bombardements des digues et des villes par bombes guidées au laser, bombes perforantes, bombes à fragmentation anti-personnelles, etc....).

Ces faits provent que les découvertes scientifique sont systématiquement perverties au service d'une guerre impérialiste au mépris total non seulement du droit, mais de la vie de millions d'hommes.

La Syndacat National de l'Enseignement Supérieur qui regroupe des milliers d'enseignants du Supérieur sensibilisés à ces pratiques d'utilisation dévoyée du travail scientifique, ne conçoit pas qu'une discussion aux problèmes généraux des physiciens dans le monde, c'est-à-dire vis à vis de la Société et de la nature, puisse éluder une réalité connue de tous et qui prend en certains cas les proportions d'un crime.

C'est un fait que le développement sans précédent des sciences et des techniques ne se réalise pas sans une dépendance de plus en plus serrée des réalisations scientifiques vis à vis des moyens fournis par les Etats: il en résulte évidemment que les objectifs de la recherche scientifique ne sauraient demeurer indépendants de la puissance politique qui fournit crédits, laboratoires et matériel.

Ce sont ces mêmes grands intérêts et leurs organes d'expression qui, dans une campagne qui va s'amplifiant, accusent ou laissent accuser la science et les scientifique de tous les inconvénients (dégradation de la nature, fabrication d'armes les plus puissantes) dont chacun ressent aujourd'hui la pression croissante.

Cette vaste opération d'intoxication n'est nullement contradictoire avec l'utilisation de la science à des perverses. Elle vise à isoler davantage encore de l'opinion publique, les scientifiques en rejetant sur eux une responsabilité qui incombe en premier lieu à ceux utilisant leurs compétences.

C'est pourquoi le S.N.E. Sup. ne saurait non plus approuver qu'à cette occasion soit engagé une sorte de procès de la science par coupables interposés. Une telle attitude reviendrait à se tromper d'adversaire: l'inconscience ou le cynisme de certains scientifiques - notamment aux U.S.A. - ne met pas en cause le développement de la science: la responsabilité doit en être imputée aux forces bellicistes qui les manipulent comme elles manipulent d'autres catégories de citoyens.

Les grandes entreprises capitalistes à qui fabrication d'armements de guerre d'une haute technicité profite dans des proportions démesurées,

TRIESTE 32.

l'état major du Pentagone qui pousse à la poursuite d'une guerre de plus barbare voilà les vrais coupes. C'est leur politique et tous les moyens auxquels ils recourent pour la poursuivre qu'il faut dénoncer publiquement.

Compte tenu de ces considérations qui lui paraissent primordiales, le S.N.E. Sup. estime que les scientifiques ayant participé activement et consciemment à la réalisation des projets les plus criminelles du Comité Jason doivent être publiquement critiqués au même titre que les savants qui jadis ont volontairement collaboré avec les nazis.

Le Bureau National du S.N.E. Sup.

Montrouge, le 15 Septembre 1972

DECLARATION DU SNCS (FEN)

Du 18 au 25 septembre 1972 a lieu à Trieste, à l'instigation de l'OTAN, une réunion de scientifiques dont certains ont participé au comité JASON, qui a recommandé le recours aux armes de guerre anti-personnelles utilisées au Vietnam.

Le SNCS considère que les Etats Unis principal pays membre de l'OTAN, sont les responsables de la guerre d'agression qu'il mènent au Vietnam en utilisant les moyens les plus modernes (bombes guidées par laser, défoliant, bombes à billes....) pour détruire et tuer. Il est criminel d'utiliser la science et des scientifiques pour se livrer à une véritable tentative de génocide contre le peuple vietnamien. Des crimes analogues ont sévèrement été jugés par l'humanité après la deuxième guerre mondiale.

Le SNCS mène depuis de longues années une lutte énergique contre l'agression américaine en Indochine, traduisant l'indignation des chercheurs devant la barbarie dont les Etats Unis font preuve au Vietnam.

Il estime que les scientifiques ont une responsabilité particulière dans la lutte pour la Science soit utilisée uniquement pour le bien être des hommes et non pas dévoyée dans un but d'extermination d'un peuple en lutte pour sa liberté.

S'il existe malheureusement les scientifiques qui acceptent de travailler au service d'une guerre d'agression, nombreux sont les scientifiques dans tous les pays, y compris aux Etats Unis, qui ont conscience de cette responsabilité, comme en témoigne la lettre ouverte signée par des scientifiques du monde entier et adressée au Président Nixon pour protester contre la guerre que mènent les Etats Unis au Vietnam.

Il est remarquable d'ailleurs que ce soient les mêmes milieux dirigeants qui dévoient la science et en même temps orchestrent une campagne pour dénigrer la science et les scientifiques, dans le but évident d'isoler les scientifiques de l'opinion publique et de mettre davantage la science au service des grands intérêts capitalistes.

C'est pourquoi le SNCS s'élève contre cette campagne de dénigrement de la science qui a pour but essentiel de masquer les coupables des utilisations négatives qui en sont faites: il estime que la responsabilité fondamentale de la perversion de la science incombe à ceux qui n'ont pour objectif que de l'utiliser dans tous les domaines pour des buts égoïstes de domination et de profit, et considère que les scientifiques qui participent activement et consciemment à l'élaboration des projets criminaux du Comité JASON doivent être publiquement condamnés.

Le Secrétariat du SNCS

Le 16 septembre 1972

Monsieur le Professeur,

Le Syndicat National des Travailleurs de la Research Scientifique - C.G.T. vient d'apprendre que, du 18 au 25 septembre 1972, se tient à Trieste un symposium sur le développement de la physique et ses conséquences.

Les organisations syndicales de scientifiques, qui luttent pour l'application pacifique et progressiste des résultats de la Sciences, sont tenues à l'écart de ce symposium.

Au contraire, des membres du comité Jason, qui ont préconisé entre autre le développement des bombes à fragmentation antipersonnel et des bombes à guidage par Laser, seront présents à ce symposium.

Le Syndicat National des Travailleurs de la Recherche Scientifique, membre du Collectif Intersyndical Universitaire d'Action Vietnam-Laos-Cambodge, exprimant l'émotion et la réprobation des travailleurs scientifiques groupés en son sein, élève la plus vive protestation sur les conditions dans lesquelles se réunit ce symposium.

Veillez agréer, Monsieur le Professeur, nos salutations distinguées.

Le Secrétaire National

G. BERNET

18.9.72

Open letter to the participants in the symposium on the Development of the Physicist's Conception of Nature

Most of the scientists here in Trieste for this conference acknowledge their social responsibility in view of the tremendous consequences for all people of their discoveries about nature.

But words must be matched by deed. Humanity is now witnessing a monstrous example of the misuse of science and technology in Vietnam where in order to seek control over people and resources, the U.S. is inflicting mass destruction on a whole people and on the countries of Indochina.

The latest development in this war include laser guided bombs, plastic pellet bombs, and the "electronic battlefield" which locates and destroys anything alive in a given area. The word "ecocide" has been invented to describe the effect of massive defoliation, crop destruction, and an intensity of bombing unprecedented in human history. Dikes have been weakened by bombing so that heavy rainfall, natural or artificially provoked, may cause their collapse.

Scientists of the Jason Division of the Pentagon's Institute of Defense Analysis have played an important role in this escalation of technological warfare. Minutes of this division have disclosed the active participation of many well known physicists to the development of these mass destruction devices and techniques.

Some of these physicists, Elliot Montroll, Charles Townes, Steven Weinberg, Eugene Wigner and John Wheeler are among you.

We do not accept a discussion with these physicists who are accomplices in crimes against humanity. We do not agree to speak with war criminals.

We denounce the NATO financing of this symposium, a fact which was kept secret from you. Responding to the active opposition of students, researchers, scientific organizations, and unions both Italian and foreign, the conference organizers moved the opening session from the university to the International Center for Theoretical Physics where it was finally held behind police barricades. Defended military, it has become a symposium isolated from the surrounding community, where scientists gather who are indifferent to the principles of humanity.

The physicist's committee for the distribution of the letter addressed to the physicist's community of August 25,

Collettivo Indochina, Trieste
Comitato Vietnam, Milano

TRIESTE 36.

Comitato Unitario di Base, Università di Trieste

Centro del Manifesto, Trieste

Lotta Continua

Sezione Universitaria "E. Curiel" del PCI

Sezione Universitaria del PSI

FUCI (Federazione Universitaria Cattolici Italiani)

Operatori Sanitari dell'Ospedale Psichiatrico di Trieste

The material collected here is intended to provide the participants to the symposium on "Development of the Physicist's Conception of Nature" with some basic facts about a subject of direct relevance for the symposium, namely the role of institutional science in the military - industrial complex.

It includes a description of IDA (Institute for Defence Analysis) and JASON, excerpts from the transcripts of the 1967 JASON session "on counter-insurrection in Thailand" (O).

Enclosed are also a statement signed by most of the participants in the 1972 Enrico Fermi Summer School in Varenna, on the History of the XX Century Physics, and a statement signed by many physicists condemning the involvement of scientists in war activities.

Trieste, September, 1972

(O)

(O) "The Student Mobilizer", April 1970: see also Wolf & Jorgensen, Astropology on the Warpath in Thailand, New York Review of Books, Nove. 19: 1970.

FREEDOM IN VIETNAM !!!

STOP TO ECOCIDE !!!

In the framework of activities against the Trieste ICTP symposium, sponsored by NATO, which hosts scientists who are involved in the research and development of mass destruction devices and techniques used against Vietnamese people, there will be a

M E E T I N G

on MONDAY 25 at 05.30 p.m.

in Piazza Goldoni

The speakers will be:

LICIA CHERSOVANI (Collettivo Indochina)

MARGHERITA HACK (Director of the Astronomic
observatory of Trieste)

RAVEL KODRIC (Student of the University of Trieste)

G.B. ZORZOLI (Vietnam Committee - Milano)

ARTURO CALABRIA (ANPI)

Everyone is invited to participate and solidarize actively with the Vietnamese people to condemn the crimes of the USA imperialism.

LET'S GIVE OUR STRONGEST AND MASSIVE REPLY TO THE
"WAR CRIMINAL PROFESSORS"

Centro del Manifesto

CGIL - Scuola

Collettivo Indocina

Comitato Vietnam de Milano

CUB di Scienze - Università de Trieste

FUCI

GCR Sezione Italiana della IV Internaziona-

The Physicists of IDA's Jason Division
and the Trieste Meeting on
"Development of the Physical Conception of Nature"

This is the translation of an article which appeared in the French daily "Le Monde" on September 30, 1972 under the title: "Physics and the Indochina War".

An international symposium on the theme "Physics and the Conception of Nature" took place in Trieste on September 18 to 25. Among the participants were five members of the Jason Division of the Institute for Defense Analyses. Wigner (University of Princeton and Nobel Prize winner in Theoretical Physics), Wheeler (University of Princeton) who has been collaborating for twenty years with the Pentagon, Montroll (University of Rochester) who occupied a high position in the Institute for Defense Analyses, Weinberg (MIT) and Townes (University of California, Nobel Prize winner, inventor of the laser). 300 demonstrators waited for the participants in the auditorium of the University of Trieste where the inaugural meeting was to take place. They wanted to ask the physicists of the Jason Division to explain their participation in the Indochina War. The organizers decided to hold this inaugural meeting in the suburb of Trieste. 300 demonstrators attempted to go to that meeting but were stopped by 100 riot police. The Italian professor Budini, director of the Center for Theoretical Physics, let it be known to the demonstrators that he would accept a delegation. 50 persons entered the room and distributed informative pamphlets about the Jason Division while a declaration was read denouncing the presence of "war criminals" in the room. The only reaction was that of Professor Wigner, well known for his active support of present United States policies, who held up a sign which read "I am flattered by your accusations. They are compliments for me". Meetings were held in the university while the symposium was in session and a demonstration to support the Indochinese peoples took place on Monday, September 25 in the streets of Trieste with 500 people marching.

((30))

TRIESTE 40.

PHILIPS RESEARCH LABORATORIES
N.V. Philips' Gloeilampenfabrieken
Eindhoven Netherlands

November 16, 1972

Professeur J.M. Lévy Leblond
Physique Théorique
UNiversité de Paris
Place Jussieu
PARIS (5)

Dear Lévy Leblond,

I am enclosing the text of my lecture at Washington. It was rather well received and most members of the audience seemed to agree on the whole with my conclusions. Unfortunately, judging by the result of the elections, they represent a minority of the American people.

You may probably have had reports about the Trieste meeting but you may be interested in having my account.

As I see it there were two somewhat independent actions. One was a circular letter from Naples requesting physicists to bring pressure to bear on the Trieste conference participants to discuss among themselves questions of war and peace. A valuable reaction to this letter came from Hans Bethe.

There was also an organized protest demonstration by students. In view of the student actions it was decided to have the opening session not at the University of Trieste as planned but at the Institute itself. The Institute was protected by police. I was not too happy about this but I made it at once known to the students that we would be happy to have a discussion with them and that both Wigner and Wheeler would be quite willing to answer questions or make statements. At first it looked that the students were accepting this offer but they asked to be permitted to make a short statement during the main meeting. This was granted, they came, distributed essentially the same material as in Varenna and read a statement in which they refused to discuss with "war criminals" or their associates. They certainly kept their part of the bargain, did not engage in further discussions or demonstrations and left quietly and with considerable dignity. I tried, as best I could, to cut short any discussions at that moment by the participants at the meeting, but repeated that we would return to the matter that evening and that students were welcome. However, they stuck to their attitude and did not turn up. Therefore the discussion we had in the evening was a short and rather one-sided one. After this the meeting went on as planned without further interruptions or hostilities.

Let me summarize the results:

- a) a meeting that in my opinion was rather important, also slightly nostalgic and at the same time festive has taken place without major interruptions.
- b) a group of students and young scientific workers have had opportunity to voice their opinions in a rather effective way.
- c) the relevant issues were discussed by participants to a certain extent in a plenary meeting and much more extensively in smaller groups.

So far so good. And yet I feel unhappy about the whole situation. Knowing Wigner and Wheeler as men of integrity and with a great sense of responsibility I find it both unjust and ridiculous to single them out as "war criminals" and to call every member of Jason a war criminal. Incidentally Wigner left Jason 8 or 10 years ago but the committee of students told me this did not interest them. This is another of my worries: Activists do not seem to be interested to get the facts straight. Of course you might say that anyone who is living in our Western society, who is enjoying some of the amenities and comforts and securities this society offers, bears part of the responsibility for cruelties and inequities that this society condones or supports and in this sense most of us are war criminals. It is almost like the doctrine of original sin in a new form. I cannot feel that people Wigner and Wheeler, however much I may disagree with their points of view, are much more guilty than others.

I also find it alarming that it is becoming difficult to have meetings on certain subjects without outside interference. I consider the right to organise meetings an essential element of democracy. If dissenting groups want to boycott a certain meeting, want to explain in print or in meetings organised by themselves why they consider a proposed meeting irrelevant or even obnoxious, if they want to write letters to prospective participants, that is alright. If they start to make meetings impossible this becomes a form of dictatorial interference with liberty which I detest.

I should like to come back some other time to some of the questions in the reprints you sent me. My own ideas are rather different from yours. I believe that the course of science and the development of the concepts of physics is not much influenced by the political and economical structure of society and that any attempt to find a correlation between physical theories and the bourgeois (or feudal, or proletarian) background or its originators is futile.

Of course the development of technology does depend on such factor and scientists use available technology, just as they used kings in the old days, and insofar there is a connection, but if you start to look for more direct relations you get dangerously close to the suppression of Galilei's ideas by the Roman Catholic church or the stalinist attitude towards genetics in more recent times.

In my opinion the main problem of our age is rather opposite: A doctrine on men and society does not in any way determine the course of science; neither does scientific progress itself lead to ethical or social or political concepts. Science as such is largely outside the realm of human realities and yet its technical consequences shape the world and our futures. Perhaps we can some day have a quiet discussion on such matters.

With kind regards,

Yours sincerely,

Prof. Dr. H.B.G. Casimir

C H I C A G O

At the International Conference on High Energy Physics (Batavia, Chicago, September 1972) the "Varena Statement on Vietnam" was largely distributed (2,000 copies) among the participants by the Chicago Collective of "Science for Vietnam". A brief leaflet introduced the Varena Statement and asked for signatures ((1)).

The Conference Secretariat refused to accept the strips with the signatures; they had to be left c/o B.Vitale in an envelope. Final result: 22 signatures, 2 of them from American physicists.

The "Science for Vietnam" Collective distributed also a more detailed leaflet on Jason ((2)).

NO WEAPONS IDEA IS SO GROTESQUE IT ESCAPES THE MILITARY'S ATTENTION:

EARTHQUAKES, FIRESTORMS, FLOODS, GENETIC WARFARE

.....Each of these is in some stage of development right now.

But a war that depends increasingly on science and technology is increasingly vulnerable to resistance by scientists. Weapons research isn't confined to military bases to prepare for the bombing of the dikes. The military had to reach out to Universities, Industry and civilian agencies.

At every level the war is prosecuted by people who say they're against it; scientists giving technological support for the war shouldn't be allowed to hide behind their political opposition.

Help us ! Resist the war in the terrain you know best. Look at your own research field. How could the military use it for warfare ? Which labs are likely contractors ? What research would the military need done, and how can the Vietnamese resist it ?

Working together we can return science to the people !

SCIENCE FOR VIETNAM - CHICAGO

CHICAGO (BATAVIA) 11.9.72

(here followed the "Varena Statement on Vietnam")

If you wish to support the above statement, please sign below.

Return the bottom portion of this sheet to Science for Vietnam through the Conference Secretariat.

I SUPPORT THE ABOVE STATEMENT ON VIETNAM

Signature

Institutional Affiliation

Permission to use
for publication

yes / no

JASON IS NOT NEUTRAL SCIENCE

We think it important as anti-war scientists from the United States and Europe that the "neutrality" of science and the role of institutional science in the military-industrial complex be considered. We have been alarmed for some time by the symbiotic relationship between academia and its active participation in defense related research, which all too often leads to inhuman ends.

One of the examples of elite academic participation in the military-industrial complex is the JASON division of the Institutes for Defense Analysis. During the 1966 summer study session of JASON the concept of the "electronic battlefield" was developed with its anti-personnel weapons: Gravel mines, cluster bombs, and "button bomblets", that are designed..... not to injure when stepped on by a shod foot," but nothing is said about small bare feet. (Quotation from Pentagon Papers, Gravel, Vol.4, p.121).

Does this imply that JASON did Vietnam research only once in 1966 ? No ! In fact JASON shifted to Vietnam research in 1964 when "increased Government attention to such problem as counterinsurgency, insurrection, and infiltration led to the suggestion that JASON members might be able to provide fresh insights..." (IDA Annual Report, 1966, p.15). Official IDA reports state that in 1967 "JASON continued to work on technical problems of counterinsurgency, warfare and system studies with relevance to Vietnam." The Vietnam War was a major concern of JASON at least through January 1968 (Pentagon Papers, Vol.4, p.225).

Some participants in JASON have implied that the major 1966-67 work of JASON was a condemnation of the bombing, and that this was done for humanitarian reasons. A crucial correction is in order. A cold-blooded cost-benefit analysis did lead to the conclusion that: "We are unable to devise a bombing campaign in the North to reduce the flow of infiltrating personnel into SVN." (Pentagon Papers, Vol.4, pgs. 224-225). The framework in which the JASON scientists were operating dictated that the only way to oppose the bombing was to come up with a more lethal and convincing substitute. "Nine different strategies were examined including mining the ports, attacking the dikes and various combinations of attack emphasis on the LOC (lines of communication) system." (Pentagon Papers, Vol.4, p.224).

The question of RESPONSIBILITY is more general than just doing direct military related research whose applications are easily detectable. Much of the seemingly innocuous research done under the auspices of the Department of Defence is frequently just a part of a whole weapons system and its application cannot be seen in its isolated capacity.

There are even questions of legitimate research being turned to military ends. Weather modification has now become a weapons of war: the added rain that cloud-seeding will produce will create added pressure on the North Vietnamese dike system. (New York Times, July 4, 1972, p.1).

WHAT CAN WE DO ? If academic scientists in sufficient numbers choose to act in concert, they can bring considerable leverage to deny the resources of academia to the military. We can look at our own field, anticipate what the military will use or are working on, tell the Vietnamese how to resist it, and unveil this to the public.

CHICAGO 3.

And what about the beneficial uses of military research ? Dr. Lukasik of the Advanced Research Projects Agency of the Department of Defense stated to the Senate Appropriations Committee: "We are part of the Department of Defense and so defense is our customer. Any other benefits are essentially side benefits. If we develop a fast computer and if anyone else is interested in fast or cheap computing, they can make use of that development. But it is justified on the basis of defense needs."

SEIZE SCIENCE FOR THE PEOPLE !

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CHICAGO September '72

C A G L I A R I

At the 1972 Annual Congress of the Italian Physical Society (SIF) (Cagliari, November 1972) three statements were approved ((1)) :

- a) asking for a "Science and Society" SIF journal
- b) protesting for the utilization by the U.S.A. nuclear submarines of the Italian naval basis of La Maddalena
- c) asking for a collaboration program between SIF and the scientific institutions of the Democratic Republic of Vietnam

Besides, the General meeting of the members of SIF undersigned the Varena Statement.

A "Letter on the war professors" was signed in Cagliari by more than 300 Italian physicists ((2)) ; it asked for a general boycott by SIF against all physicists whose participation to Jason activities had been proven. In particular, it asked SIF not to invite such physicists at schools, congresses, conferences organized by SIF ; and to expell them, if members of SIF.

Following the recommendations of the General meeting, the Council of SIF, meeting in Rome (December 1972), decided to launch a subscription in favour of the proposed scientific collaboration program with the DRV . The drive on the part of the Direction of SIF in favour of the program was however weak; with the money collected (less than 2,000 dollars) back copies of "Il Nuovo Cimento" were sent to Hanoi. And the program died there. As yet, no "Science and Society" journal has materialized. ((3))

Statements approved by the Assembly of the members of the Italian Physical Society, Cagliari, November 1, 1972.

L'assemblea dei Soci della SIF fa proprio lo Statement on Vietnam firmato dalla maggioranza dei partecipanti alla scuola di Varenna 1972 sulla Storia della Fisica.

- a) Riconoscendo l'esigenza di una iniziativa editoriale rivolta ad un pubblico internazionale nella quale trovino un'adequata collocazione tematiche già affrontate in iniziative intraprese dalla SIF e concernenti i rapporti tra scienza e società, chiede che essa venga studiata e concretata nel più breve tempo possibile.

- b) L'assemblea dei soci della SIF preoccupata per la situazione determinata dall'insediamento di una base statunitense di appoggio per sommergibili nucleari a La Maddalena, situazione la cui gravità è stata denunciata autorevolmente dal personale dei Laboratori di Fisica dell'Istituto Superiore di Sanità: fa proprie le valutazioni espresse nel documento dei Laboratori di Fisica dell'Istituto Superiore di Sanità e nella risoluzione dell'ultimo congresso della Società Italiana di Biologia e Biologia molecolare sui gravi pericoli ecologici derivanti dalla iniziativa suddetta.

Si associa in particolare al desiderio e alle prospettive di pace espressi nel documento dei Laboratori di Fisica dell'Istituto Superiore di Sanità e alla richiesta di allontanare i sommergibili nucleari dalla Maddalena e da tutto il Mediterraneo.

Proposta di programma di collaborazione scientifica con la R.D.V.

- c) Alcuni fisici americani hanno messo da anni il loro tempo, il loro prestigio e i loro Istituti a disposizione del governo americano, per lo studio di problemi scientifici e tecnici di maggiore interesse per il Pentagono; questi "consulenti militari" sono direttamente responsabili del rapido trasferimento delle nuove scoperte e tecnologie verso la produzione di armi aggressive sempre più precise e letali. Contemporaneamente, attraverso il finanziamento dei programmi scientifici, una larga parte della ricerca americana è stata indirizzata verso problemi e settori di diretto e indiretto interesse per il Pentagono; in tal modo, l'attività dei laboratori di ricerca e degli Istituti universitari contribuisce in modo determinante alla efficacia della politica di aggressione imperialista nel mondo.

Noi riteniamo che sia entro le nostre possibilità di prendere iniziative antagoniste alle attività dei "fisici della guerra" e degli Istituti al servizio del Pentagono che contribuiscano a rafforzare la capacità di ricostruzione nei paesi d'Indocina più brutalmente colpiti dall'attacco americano; che aiutino questi paesi, sin d'ora e dopo la loro vittoria, a definire un programma di sviluppo tecnico e scientifico.

L'assemblea dei soci chiede quindi che la SIF prenda direttamente contatto con le istituzioni scientifiche della Repubblica Democratica del Vietnam e con la Delegazione Generale della R.D.V. a Parigi, per mettere a punto un programma organico di collaborazione scientifica che comprenda, ad esempio, lo scambio di materiale didattico e scientifico nonché di personale tecnico.

L'assemblea dei soci chiede che a tal fine venga nominato un Comitato ad hoc della SIF, responsabile dello sviluppo di un tale programma.

((2))

CAGLIARI 2.

Letter on the "war professors"

I seguenti fisici italiani, ribadendo la propria condanna di quei fisici che hanno avuto - in quanto membri della Divisione Jason - una diretta corresponsabilità nella sistematica applicazione di scoperte scientifiche per l'aggressione imperialistica USA in Indocina, chiedono che tale condanna si traduca in un preciso impegno della SIF ad escludere dalla Società stessa e da ogni sua iniziativa (scuole, congressi, convegni, ecc.) tutti gli scienziati di cui sia stata provata l'appartenen-za alla Divisione Jason.

Signed by more than 300 Italian physicists

Cagliari, November '72

STATEMENT BY THE COUNCIL OF THE ITALIAN PHYSICAL SOCIETY:

Il Consiglio della SIF riunito a Roma il 21 dicembre 1972 ha deciso di rendere sollecitamente operative le istanze espresse dalla mozione approvata dall'Assemblea dei Soci a Cagliari il 31 Ottobre 1972. In tale mozione si propongono iniziative che contribuiscano a rafforzare le capacità di ricostruzione dei paesi dell'Indocina più gravemente colpiti dall'attacco americano e li aiutino a definire un programma di sviluppo tecnico e scientifico. Ciò nella consapevolezza che l'uso estensivo nel Vietnam di armi aggressive per le quali ci si avvale sempre più di mezzi tecnici moderni e scoperte scientifiche avanzate, pone gravi problemi di responsabilità alla coscienza di tutta la comunità scientifica.

A tale scopo il Consiglio della SIF ha deliberato di promuovere una sottoscrizione tra i fisici italiani al fine di raccogliere fondi per l'acquisto di apparecchiature scientifiche e didattiche da devolvere a istituzioni scolastiche e culturali della Repubblica del Nord Vietnam.

Ha deliberato inoltre di nominare una Commissione con il compito di organizzare opportunamente tale iniziativa e di coordinarla con iniziative simili promosse da Istituzioni scientifiche e culturali nazionali ed internazionali.

Il Consiglio prenderà contatto con la Delegazione Generale a Parigi della Repubblica del Nord Vietnam al fine di comunicare tali decisioni e definire un programma di informazioni e di scambi che meglio concretino le opportune forme di collaborazione.

Il Consiglio sottolinea il significato di tale iniziativa in un momento in cui le speranze di soluzione pacifica del conflitto, che si erano recentemente manifestate sembrano allontanarsi con la ripresa dei massicci attacchi aerei e delle distruzioni.

21.12.72

FRENCH LETTER

A group of French scientists sent (December 1972) a letter to those American colleagues whose names appeared in the unofficial list of Jasson members published in 1970 by NACLA ((1)) .

Some of the American scientists replied :

- ((2)) H.M.Foley , Columbia University, New York
- ((3)) M.Ruderman , Institute for Advanced Studies, Princeton
- ((4)) F.Dyson, Institute for Advanced Studies, Princeton
- ((5)) G.B.Kistiakowsky , Harvard University, Cambridge USA

(1)

Paris, Décembre 1972

Dear Professor,

The question of the involvement of scientists in the war in Vietnam was recently raised in relation to the publication of "Pentagon Papers". In particular these "Papers" refer to the direct participation of the scientists of the Jason Division of the Institute for Defense Analyses, in the elaboration of the strategy of the so called "Automatic Battlefield" in Vietnam.

"...In any case, McNamara liked the idea and sent Zacharias a letter on April 16 (1966) formally requesting that he and others arrange the summer study on "technical possibilities in relation to our military operations in Vietnam". On April 26 (1966) he advised John McNaughton, who was to oversee the project, that the scientists' group should examine the feasibility of "a fence across the infiltration trails, warning systems, reconnaissance (especially night) methods, night vision devices, defoliation techniques, and area-denial weapons"... The contact, it was determined, would be let to the Institute for Defence Analyses (IDA) for the study to be done through its Jason Division (ad hoc high-level studies using primarily non-IDA scholars). The group of 47 scientists (eventually to grow to 67 with the addition of 20 IDA personnel), representing the cream of the scholarly community in technical fields, finally met in Wellesley on June 13 (1966) for ten days of briefings by high-level officials from the Pentagon, CIA, State and the White House on all facets of the war. Thereafter they broke into four sub-groups to study different aspects of the problem from a technical (not a political) point of view. Their work proceeded through July and August... At the end of August, the Jason Summer Study... submitted four reports: (1) the effects of US bombings in North-Vietnam: (2) VC/NVA logistics and manpower: (3) an air-supported anti-infiltration barrier: and (4) summary and results, conclusions and recommendations... Their work completed, the Jason group met with McNamara and McNaughton in Washington on August 30 (1966) and presented their conclusions and recommendations. McNamara was apparently strongly and favourably impressed with the work of the summer study because he and McNaughton flew to Massachusetts on September 6 (1966) to meet with members of the study again for more detailed discussions". (from Pentagon Papers, vol. IV, pages 115 and 123, Gravel Edition, Beacon Press, Boston).

Elsewhere, (page 122), the author of "Pentagon Papers" states that the scientists, in their report, recommended that the following should be dropped on Vietnam and Laos, to perform this air barrier between North and South: "20 million Gravel mines per month; possibly 25 million button bomblets per month; 10000 SADEYE-BLU-26B clusters per month".

It is this last allegation that seems to us particularly serious: BLU 26B are antipersonnel pellet bombs, GRAVEL mines are antipersonnel mines: it is now widely known that such weapons have been massively used by the US army and that they have caused terrible wounds among Vietnamese civilians.

If the description given by "Pentagon Papers" of the content of the Jason report were correct, it would mean that eminent members of the scientific community have participated directly in what we consider to be one of the most criminal wars in history.

You will understand that the question of the ultimate responsibility of senior physicists in this war is considered by all scientists, and by the general public,

to deserve serious attention. It seems to us that first of all the facts should be carefully established. This is rendered somewhat difficult by the fact that the activities of the Jason Division are classified. It is in this spirit of seeking the truth that we are writing to you. Your name appeared in 1970 in an unofficial list of Jason members published in "The University-Military-Police Complex", NACLA, Berkeley.

We are sure that you will agree with us that the gravity of the allegations necessitates an effort to establish the truth and we hope that you will be willing to tell us whether, to your knowledge, the Pentagon Papers account is really correct or not. Given the extreme importance of the facts mentioned, for the international scientific community, we feel that this letter and your answers ought to be published, if possible, in an international scientific journal.

SIGNED BY:

Henri CARTAN, Mathématicien, Professeur à l'Université Paris XI (Orsay) France.

Hugh FELKIN, Directeur de Recherche au C.N.R.S.
Institute de Chimie des Substances Naturelles
GIF SUR YVETTE France.

François GROS, Biologiste, Professeur à l'Université Paris VII France.

Dorothy Crowfoot HODGKIN, Prix Nobel de Chimie
Laboratory of Molecular Biophysics
Oxford England.

Edgar LEDERER, Biochimiste, Professeur à l'Université Paris XI - (Orsay) France.

Vittorio LUZZATI, Directeur de Recherche au C.N.R.S.
Biologiste, Institut de Génétique, GIF SUR YVETTE France.

André LWOFF, Prix Nobel de Médecine, Institut Pasteur, Paris.

Michel MAGAT, Professeur à l'Université Paris XI (Orsay)
Physico-Chimie des Rayonnements France.

Francis PERRIN, Physicien, Membre de l'Institut

Leopold RUZICKA, Prix Nobel de Chimie,
Eidgenosse Technische Hochschule, Zurich Suisse.

^Z
Evry SCHATMAN, Astrophysicien, Professeur à l'Université Paris VII

R.L.M. SYNGE, Prix Nobel de Chimie,
Agricultural Research Council, Norwich, England.

Henri VAN REGEMORTER, Physicien, Directeur de Recherche au C.N.R.S. - MEUDON, France.

Laurent SCHWARTZ, Mathématicien, Professeur à l'Université Paris VII.

((2))

Columbia University in the City of New York - New York

January 16, 1973

Professor Francis Perrin
4 Rue Froidevaux
Paris, 14, France

Dear Professor Perrin:

I have received from Paris a letter which discusses the participation of a group of scientists, the Jason group, associated with the Institute for Defense Analysis, in the planning of the so-called "McNamara Line" in 1966. The letter, to which your name is attached, first quotes extensively from the Pentagon Papers, and then raises questions of the responsibility of these scientists in the prosecution of the Viet Nam War. At the suggestion of my colleague, Professor I.I. Rabi, I am addressing my reply to you.

I have been a member of this Jason group since 1961. You will understand that it is an association of university scientists, which meets for informative "briefings" twice a year, but whose own contributions to various national problems, mostly on questions of military security, are made primarily in an annual 6-7 week summer study. Because of the limited time given to this activity, only modest results can be expected from their work. In my opinion there has been considerable exaggeration of the effectiveness of the group by both friend and foe.

In 1966 you will recall that there had been a considerable U.S. bombing campaign already in North Vietnam. There was wide concern in scientific, academic, and some government circles that this campaign would be extended and eventually engulf the whole of Southeast Asia in the war. The conference at Wellesley, Massachusetts in the early summer was a nearly spontaneous gathering of these concerned people to find a practicable alternative. This meeting had, I believe, the tacit approval of Secretary McNamara, who shared the grave doubts on the bombing campaign. At this meeting there evolved the concept of a highly automatic "sealed barrier" line, stretching from the sea below the DMZ and along the Laotian border. This strip, several hundred miles long and a few miles deep, would be sown with automatic alarm devices and small anti-personnel weapons which would presumably constitute a nearly impenetrable barrier to infiltration of arms and supplies from the north. The whole idea, clearly, was to confine the war and its destruction to South Vietnam and to make unnecessary in strictly military terms, bombing or other attacks outside that area.

After this preliminary meeting in Wellesley, which involved many other people than the few members of the Jason group who were present, a second more technical session took place in Santa Barbara in the late summer. This session worked out detailed implementations of the "barrier" concept. No new devices or weapons were developed; items from the existing inventory were employed in systems of warning, communications, and weapons which would use a minimum number of troops and at the same time make this frontier strip nearly impenetrable. This second working session consisted mostly of Jason members, with a few added scientists. Participation was entirely voluntary.

As a matter of fact, I personally did not take part in this effort as I had strong reservations about it for both political and technical reasons. At that time and subsequently I had many discussions of this project with my associates who did take part. Most of them shared my own grave doubts on the necessity and

indeed the morality of the American military effort in Viet Nam. As indicated above, however, they believed that by offering to the military and to the Administration an acceptable alternative to the bombing policy, that the war could be confined in area and perhaps thereby brought to an early conclusion. (As a matter of fact the "McNamara Line" was never deployed because, I believe, of military opposition to it. Thus we do not really know what might have been its effects). This was the judgment of honorable men, which I believe should be respected. To pin on them responsibility for the subsequent bombing campaigns, in particular to ascribe to them the invention of various anti-personnel weapons is sheer fantasy and grossly unfair. The recent deplorable demonstrations in Europe directed against Professors Gell-Mann and Drell must be viewed as irrational and misplaced reactions against a war which should never have been engaged in and which must be terminated.

Yours very sincerely,

Henry M. Foley
Chairman

(3)

The Institute for Advanced Study
Princeton, New Jersey

January 22, 1973

Professor Evry Schatzman
Observatoire de Paris
Section D'Astrophysique
92-Meudon (Haute de Seine), France

Dear Evry:

I was surprised and perplexed to receive from you the letter dated "Paris, December 1972" requesting information about Jason Vietnam activities in 1966. The letter is both an inquiry and a prejudgment. But why did you not mention these matters to me during the week we just spent together in Arad? There was so much time then to discuss facts and issues. How can a letter compare to that lost opportunity?

On the posed question of the validity of the quoted details from the Pentagon Papers I have almost no information not available to you since I have not myself ever worked on Vietnam war problems or read any of the relevant classified documents. You or other signers will, no doubts, receive some replies from those who were personally involved; if confirmation of details is a crucial issue for you, it had best be explored there.

Although many of us in Jason who abhorred the war and the U.S. role in it did not participate in these activities, some others who expressed similar feelings did. (I have been reliably informed that actually most never did and that all such Jason activity ceased over five years ago.) The studies which resulted in the proposal for the "McNamara Line" took place during a period of escalating bombing of North Vietnam. The participants, according to the authors of the Pentagon Papers "stingingly condemned" the bombing and offered the lethal semi-automated barrier as a substitute. Such a barrier, designed to make a border impenetrable to infiltration, would necessarily be a quite horrible thing. Those participants with whom I have talked were convinced that it was both far less terrible than what it was intended to replace and, most important, that it was the least horrible of those alternatives that might have had some weight as a substitute acceptable to U.S. authorities at that time!

Now you wish to pass judgment on those who were involved and perhaps upon all of us. What do you wish to judge-- intentions? consequences? Both, I think, are different and more complicated than implied in your letter.

Best regards,

Malvin Ruderman

P.S. I include a copy of a response to your letter from one of my Columbia colleagues, Henry Foley. Your letter gave no instructions about how best to reply to all of you. I presume that our letters will be circulated within your group. I would ask that, if they are, they not be abridged.

((4))

January 23, 1973

The Institute for Advanced Studies - Princeton - New Jersey

Dear Dr. Schatzman:

I write in answer to the letter with 14 authors about the activities of JASON members in connection with the Vietnam war. I am indeed a JASON member and I had the opportunity to take part in the 1966 "Barrier" study if I had chosen to do so. I chose not to take part since I considered the objectives of the study to be illusory, a view that history has confirmed. But I do not consider my friends who took part in the study to have been guilty of war-crimes in any sense. If their advice had been followed, it is likely that many Vietnamese lives would have been saved.

My own contribution to the Vietnam war was, like their, mainly aimed at saving Vietnamese lives. My name came into public view on a nonsecret list of titles of documents, where I appeared as one of the authors of a paper entitled "Use of Tactical Nuclear Weapons in South-East Asia", or words to that effect. It is possible that this paper may have had some slight influence upon United States policy in Vietnam. The question is, whether we are to feel proud or ashamed of what we have done. I am glad to state publicly that I am proud of it. If our work had no effect on government policy, we can have done no great harm. If our work had some effect, then I can be proud to have helped to avert a human tragedy far greater even than the one which we have witnessed.

Freeman J. Dyson

to prof. E. Schatzman
Observatoire de Paris
Section d'Astrophysique
92 Meudon France

((5))

HARVARD UNIVERSITY
Department of Chemistry

February 1, 1973

Professor Michel Magat
Physico- Chimie des Rayonnements
Université Paris
Paris XI, France

Dear Professor Magat,

A while ago I received a form letter signed by you and by several other European Scientists which deals with the involvement of American scientists in the War in Vietnam as revealed by the publication of the so-called Pentagon Papers. This letter includes a quotation from the Pentagon Papers about Jason and the "McNamara fence" and then questions my own involvement. The quotation is not an entirely correct historical record and I want to set it straight because I was indeed substantially involved.

In the fall of 1965 I was one of the organizers of a small part-time discussion group in Cambridge, Mass., dedicated to finding ways to influence our Government to terminate our military involvement in the War in Vietnam. At the end of 1965 with the help of this group I wrote a personal letter to President Johnson, as a member of his "Board of Advisors on Foreign Policy", in which I urged termination of our involvement and proposed in some detail ways of gradual withdrawal of American military forces. Although my letter reached the President's desk I received only a rather rude note from an Assistant. Early 1966 another member of our discussion group who knew President Johnson quite intimately also wrote him a letter on the same subject arguing for disengagement. He also did not receive a meaningful reply. About the same time our group met with an assistant to Secretary McNamara and conveyed to him our concerns and ideas. The Secretary offered, as the Pentagon Papers mention, to finance a full-time summer study managed by our group. Some of our members, being at MIT, worked out the financing of the study through the Jason Division of the Institute of Defense Analyses with which MIT was then affiliated. The Jason Division on a regular basis managed summer studies of the so-called Jason Group, made up of quite a number of younger academic scientists. A part of this Jason membership joined the Cambridge discussion group for the ten days of briefings in June, mentioned in the Pentagon Papers. Afterwards a few senior members of the Cambridge discussion group and of the Jason group went to see McNamara with a proposal that we undertake several separate studies. One was that of the military effectiveness of U.S. bombings in North Vietnam. The second was of the degree of validity of the American military estimates of the interdiction of the flow of material and personnel from North Vietnam via the Ho Chi Min trails. The third was a study of alternative ways to reduce the rate of infiltration, without bombing North Vietnam. Secretary McNamara approved these proposals, the study to reduce infiltration being undertaken by the Jason group in Santa Barbara, California, whereas the greatly enlarged Cambridge discussion group undertook the study of the other problems.

At the end of August we reported to Secretary McNamara our findings that the military effectiveness of the bombing of North Vietnam was extremely low and that factual information on the effectiveness of interdiction of the flow of materiel and personnel via Ho Chi Min trails was essentially nil. The Santa Barbara Jason Group came up with a proposal that an air-laid barrier to infiltration be created across the nearly uninhabited area just south of the western (mountainous) part of DMZ in South Vietnam and the mountainous portion of Laos just north of Route 9. Those of us who did not participate in the Santa Barbara Study were dubious of the success of this venture but still we felt that it was more likely to lead to an end of the war than what was being done militarily then. We recommended to Secretary McNamara that the feasibility of the barrier be studied further while emphasizing that at best it could only reduce the infiltration and not to stop it. Secretary McNamara was apparently impressed with our findings about the military ineffectiveness of the bombing of North Vietnam which contradicted the reports reaching him through official channels. He also decided to go ahead immediately with the barrier and asked me thereupon to head the technical advisory group to this then secret project. I responded that I was opposed to the War in Vietnam and would undertake the task only if there was understanding between us that a success of the barrier would be used to de-escalate the war, by offering the President a political justification for stopping the bombing. I thought that I received a firm assurance of this intent and, therefore, accepted his invitation.

There is no point of my going into the details of what then happened. The general environment was that of a vehement and ruthless opposition of the senior military to the project. From several conversations with Secretary McNamara to whom I made reports on technical progress and the difficulties of the project I gathered that its political objective did not receive favourable reception in the White House either. In the fall of 1967, more than a year later, when McNamara left his position as Secretary of Defense, I concluded that the project was a failure as a tool of foreign policy and that the technology would be misused by the military for their own purposes. I then resigned in a letter to the Pentagon early in January 1968 explicitly on the grounds of my opposition to the American involvement in the War in Vietnam. While not making my resignation public in the sense of having a press interview, I sent a letter explaining my action to many of my scientists friends in the United States. As expected, the news of my resignation became later known to reporters and an article in SCIENCE magazine (159, 958, 1968) was published about the event.

I am aware that the barrier project resulted only in the creation of sophisticated hardware which was used by the military for tactical purposes as the automated battlefield resulting in much killing of civilians. Our studies of the military ineffectiveness of the bombing, however, had some influence on Secretary McNamara and also on his successor Clark Clifford. This probably contributed to the temporary reduction of bombing in 1968 but unfortunately not to the termination of the war, so that my involvement in these events is not a happy memory.

For the record I will further note that after my resignation I had nothing further to do with the Jason and the listing of me as a Jason member in 1970, to which your letter refers, is incorrect.

Now I want to address a question to you. In the last few months I have re-

ceived almost 500 (yes, nearly five hundred) group letters from East Germany (DDR) urging opposition to the war in Vietnam, etc. Most of these not very friendly letters have a nearly identical text, evidently being tightly coordinated. My question is whether your letter is also the product of the same management and if so, who is it that manages it all?

Sincerely yours,

G.B. Kistiakowsky

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