Interdisciplinary Collaboration in Public Interest Law

James R. Whitaker

The emerging popularity of the public interest law firm as an action-oriented institution particularly sensitive to the resolution of such controversial issues as wilderness preservation, consumer protection, and racial inequality has provoked inquiry into the most appropriate method by which these problems should be identified, researched, and resolved. Such cases present the lawyer with a myriad of issues so complex and diverse that his legal training ill prepares him to solve them alone. While experts are at least theoretically available in all litigation, the mere existence of experts in needed fields will not assure optimum results. This inquiry will focus on the best format available to identify, research and structure effective strategies for resolving public interest issues.

What is proposed here is that experts merge their expertise under the institutional umbrella of the public interest law firm. Interdisciplinary collaboration may offer a workable methodology for investigating and solving complex public interest issues that frequently transcend the traditional boundaries of a lawyer's expertise. Such an approach may furthermore provide the public interest law firm with the vehicle necessary to deliver optimum representation to those segments of society which have previously been denied equal access to the legal process.[1]

The notion of interdisciplinary team research as an appropriate vehicle for the resolution of large-scale social problems emerged in the early years following World War I because

> the general tone of the times encouraged an interdisciplinary attack upon a variety of social problems. The post-war period issued forth . . . a number of problems which required the involvement of a variety of specialists; war itself, labor problems, propaganda, population shift and dislocation, housing, social welfare,

1. The clientele of the public interest law firm is typically comprised of diverse groups of people presently unrepresented or underrepresented in our society. The precise composure of this clientele would, of course, vary according to the issue or issues to which the firm is directing its efforts. For an attempted definition of the "public interest," see Comment, *The New Public Interest Lawyers*, 79 YALE L.J. 1069, 1070-71 n.3 (1971).

> crime, etc.—all of which . . . could easily be seen as beyond the province of any single discipline. And a generation of active reformism, of increased government intervention . . . encouraged government and private agency alike to bring together the knowledge of diverse disciplines in an effort to solve these problems.[2]

The integration of the sciences was greatly accelerated during World War II as a manifestation of the war effort's need for a "comprehensive and detailed knowledge of every area of the Earth.."[3] Today, it has been noted that all good science is interdisciplinary in nature.[4] "Agencies that award funds for research and training expect, almost as a matter of course, that some note will be taken of the need for cross-fertilization."[5] A familiar indicator of the trend toward interdisciplinary collaboration is its increasing presence in the curriculum of universities and especially their professional colleges. Although commentators from the sciences have raised a good deal of criticism concerning the whole notion of interdisciplinary collaboration,[6] these criticisms are considerably diluted when directed at the practice of law *pro bono publico*.[7]

The unique skills of the lawyer and the professional role he might assume on such a team of experts will be examined, along with the problems he may encounter in organizing an interdisciplinary group of investigators.

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2. Landau, Proshansky & Ittelson, *The Interdisciplinary Approach and the Concept of Behavioral Science*, in 2 DECISIONS, VALUES, AND GROUPS 7, 12 (D. Willner ed. 1962).

3. *Id.* at 15.

4. *See generally* AMERICAN SOCIETY OF CRIMINOLOGY, INTERDISCIPLINARY PROBLEMS IN CRIMINOLOGY (1965); G. NASH, INTERDISCIPLINARY APPROACHES TO HISTORY SERIES (1970); I. MARCUS, AN INTERDISCIPLINARY APPROACH TO ACCIDENT PATTERNS IN CHILDREN (1960); INSTRUMENT SOCIETY OF AMERICA, INTERDISCIPLINARY CLINIC ON INSTRUMENTATION REQUIREMENTS FOR TRAFFIC CONTROL SYSTEMS (1965); M. HORN, AN INTERDISCIPLINARY STUDY OF CLOTHING (1968); NATO ADVANCED STUDY INSTITUTE, INTERDISCIPLINARY TOPICS IN GERONTOLOGY (1969); W. LAZER & E. KELLEY, INTERDISCIPLINARY CONTRIBUTIONS TO MARKETING MANAGEMENT (1959).

5. Sherif & Sherif, *Interdisciplinary Coordination as a Validity Check: Retrospect and Prospects*, in INTERDISCIPLINARY RELATIONSHIPS IN THE SOCIAL SCIENCES 3 (C. Sherif & M. Sherif ed. 1969).

The notion of interdisciplinary cooperation has received congressional recognition in the National Environmental Policy Act of 1969:

> The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act, and (2) all agencies of the Federal Government shall—
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> (A) utilize a systematic, *interdisciplinary* approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment; . . . . [Emphasis added.]

42 U.S.C. § 4332 (1970).

6. *See* Alonso, *Beyond the Interdisciplinary Approach to Planning*, 37 AM. INST. PLAN. J. 169 (1971); Kornhauser, *The Interdependence of Professions and Organizations*, in PROFESSIONALIZATION 292 (M. Vollmer & D. Mills ed. 1966).

7. *See* text & notes 11-12 *infra*.

RECRUITING

The preliminary task of the public interest lawyer is to recruit the kind of interdisciplinary research staff that can yield the evidentiary material necessary to effectively represent the public. "This phase of interdisciplinary research includes . . . almost all aspects of personnel administration, management, leadership, and human relations. Nothing in the personnel and administrative area of interdisciplinary research is unique except the context."[8]

Because the context in this instance is couched in terms of legal representation of the public interest, the lawyer seems best qualified to recruit team members, to supervise the formulation and investigation of various research problems, and to provide the leadership necessary to insure that the required work is completed. His skills of advocacy, used to solicit community support for the solution of public problems, can be especially helpful in recruiting qualified personnel from the community in which he operates.

The organizational model contemplated by the following analysis would be based upon the recruitment of interdisciplinary experts on a case-by-case basis according to the particular issues raised by the individual cases. The rationale underlying this model is founded upon the observation that there are problems when an expert is recruited for all purposes.[9] Nonetheless, there may be appropriate situations where a public interest law firm might employ certain experts on a full-time basis, augmenting its staff only when the particular demands of a special case so required.

Effective leadership and organization alone will not insure the success of an interdisciplinary venture. It is necessary to start with experts who are interested in the general problem area and dedicated to representing the public interest. But when good participants have been recruited, effective leadership and organization will substantially contribute to the efficiency and smooth operation of the interdisciplinary team.[10]

The paramount factor which a public interest lawyer should consider in recruiting an expert is the individual's interest in the general problem area.[11] The immediate purpose of recruiting is to bring to-

8. M. LUSZKI, INTERDISCIPLINARY TEAM RESEARCH: METHODS AND PROBLEMS 195 (1958).

9. *See* text & note 18 *infra.*

10. *See* M. Luszki, *supra* note 8, at 225.

11. It should be noted that the focus of this symposium is upon the public interest law firm that operates at the community level. Nonetheless, the notion of interdisciplinary collaboration is equally applicable to existing institutions whose primary purpose has been to represent the public interest on the national level: Berlin, Roisman, & Kessler (a self-supporting public interest law firm), Center for the Study of Law and Social Policy, Center for the Study of Responsive Law (established by Ralph Nader), Citizens' Advocacy Center (established by Edgar

gether individuals who are interested in a particular problem. A mere interest, however, is not enough. A prospective participant must be qualified and motivated for collaborative research.

One critic of interdisciplinary team research has concluded from his experience in urban planning that most such teams are composed of people who are primarily members of traditional disciplines such as economics and sociology, but who, regardless of their standings in their respective professions, tend to be amateurs when collaborating with experts from other disciplines.[12] Professor Alonso has advocated that problems be attacked by experts who are first and foremost scholars in the general problem area and only secondarily members of traditional disciplines.[13]

Alonso's recommendation is appropriate. In the first instance, all team members must be professionally dedicated to representing the public interest. Because of the funding problems presently troubling most public interest law firms[14] and the resultant likelihood that an expert's services would not be compensated in the same manner as in the private marketplace, purely financial considerations would generally discourage those who are not deeply involved and committed to the notion of public interest law.[15]

In addition to being professionally dedicated to representing the public interest, Alonso advocates that an interdisciplinary team of ex

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Cahn), Citizens' Communication Center, and the Washington Research Project. Symposium, *Inside Washington Law: The Roles and Responsibilities of the Washington Lawyer*, 38 GEO. WASH. L. REV. 777, 782 (1970) (Appendix). *See* Comment, *supra* note 1, at 1151. *See also* Berlin, Roisman & Kessler, *Public Interest Law*, 38 GEO. WASH. L. REV. 675 (1970).

12. Alonso, *supra* note 6, at 171. The criticism is directed generally at city and regional planners who, the author argues, are not properly qualified for interdisciplinary collaboration in planning. He explains that "the fundamental differences among disciplines explain why so many interdisciplinary team reports are not true collaborations but collections of chapters individually authored." *Id.*

13. *See id.*

14. It is beyond the intended scope of this work to suggest solutions to the funding problems. *See* Comment, *Federal Funds for Public Interest Law: Plausibility, Politics and Past History*, 13 ARIZ. L. REV. 932 (1971); Comment, *The Private Bar, the Public Interest, and Tax Incentives: Monetary Motivation for Action*, *id.* at 953.

15. A caveat should be interposed at this juncture with respect to the entire task of recruiting experts. Recruiting presupposes an availability of supply from which a selection can be made. Because this symposium focuses on the practice of public interest law in a community-oriented sense, it is anticipated that problems may arise in recruiting experts at the community level where there may be an inadequate supply of expertise.

Possible problems concerning the availability of expertise may be analyzed best in terms of sources from which experts would be recruited. In urban or rural communities, these sources include personnel from nearby university communities, business enterprises, governmental entities, the local professional community and retired citizenry. The potential supply of experts from these sources in an urban community will, of course, exceed that of a rural community. Further, where potential participants are employees of local businesses or governmental entities, participation as experts in a public interest law firm would, as a practical matter, be limited to those cases not resulting in a conflict with the interests of the participant's employer.

perts should be primarily trained to deal with the particular problem at hand and then, only secondarily, an expert within his own individual discipline.[16] Where the planned construction of a freeway, for example, threatens the destruction or division of a neighborhood bearing an ethnological significance, the anthropologist team member should first be sympathetic with and knowledgeable of the effects freeway construction has upon neighborhoods in general. Only secondarily is it important for him to measure the forseeable impact of such a freeway upon the ethnological significance of the particular neighborhood in question.

The rationale for such an approach to recruiting is understood by observing that any discipline is a conglomeration of diverse specialities.

> [A]ny one member of the profession is guaranteed to be utterly ignorant of most branches outside his own specialty. It would be almost by coincidence that the particular economist drafted for the task happened to be expert in the particular areas needed, unless he were drafted by someone informed in the varieties of economics, familiar with the candidate's competence, and able to anticipate the particular specialties that would be needed.[17]

By recruiting one who is first an expert in freeway or pollution problems and secondarily a specialist within his discipline, there is an assurance that the particular expertise needed would be provided by the person recruited. In most instances competent specialists in the general problem areas already exist.[18] The task is to recruit them according to the particular problem for which they are needed.[19]

While recruiting, the lawyer should note that representation of the public interest will best be effectuated by experts who are persuasive not only because of the evidence that they can bring to bear on a particular issue, but also because they are articulate spokesmen of their expert opinions. Recruitment by public interest lawyers must therefore further consider the ability of a prospective participant to be an advocate of his expert opinion.

Where the fact-finding process is prescribed by the rules of evidence, the range of an expert's advocacy is generally limited to presenting his expert opinion to a trier-of-fact unfamiliar with the given subject. After it has been established that a controversy presents factual issues which are proper subjects for expert testimony and that the witness possess proper credentials of expertise concerning those issues,[20] the questioning of the expert witness occasions an opportunity for advocative craftsmanship. The obvious function of the attorney is to maximize the

16. *See* text & notes 12-13 *supra.*
17. Alonso, *supra* note 6, at 169.
18. *See id.* at 171.
19. *See* note 15 *supra;* text & notes 24-27 *infra.*
20. *See generally* C. McCORMICK, EVIDENCE § 13, at 28-29 (1954).

effect that his expert witness may have upon the trier-of-fact, be he a relatively untrained juror or a judge experienced in evaluating testimony.

Because of this interplay, it is difficult, if not impossible, for the expert to maintain a posture of detached neutrality and relate his expert opinion impartially. As a practical matter, the expert must himself be an advocate of his expertise and correlatively, of his opinion if he is to be effective. The obligation of an expert is thus to convince the trier-of-fact of the genuineness of his testimony.[21]

One attraction of the interdisciplinary approach is that because of the collaborative efforts of participating disciplines, and for other reasons, a problem need not always be resolved through litigation.[22] In situations where a problem is not litigated or has not yet gone to trial, the potential range of an expert's advocacy is considerably broader than at trial, since he is not restrained by the rules of evidence to merely presenting his opinion to the trier-of-fact.[23] In those situations, an expert may assume roles that traditionally have been regarded as only within the purview of the lawyer's arsenal of advocative skills, for example, lobbyist,[24] drafter of legislation, consultant, critic or crusader.

Because each controversy involving the public interest calls for different areas of expertise, recruiting is an issue-oriented task. Using his skills of advocacy, the public interest lawyer will be able to persuade the community that through organization it has the power to aid in the solution of its own problems. While doing so, he will occupy a strategic position which will furnish him a concurrent opportunity to extend his message to those experts who are well acquainted with the intricacies of those problems peculiar to the particular community affected: "When you think about organizing today . . . you don't think about [the] community just in geographic terms. People are drawn together by common interests, not because they live near each other."[25] Those experts who were favorably persuaded would then comprise the theoretical group from which the lawyer could recruit team participants. It is unrealistic, however, to presume that the immediate community can supply all the necessary expertise for every public interest controversy.[26]

Moreover, to be successful in persuading the community, the public interest lawyer must convey his genuine concern with the people's

21. *Id.* at § 47, at 100-03.
22. *See* text & notes 67-68 *infra.*
23. *See* text & note 20 *supra.*
24. For a discussion concerning the limits of lobbying by a public interest law firm which is exempt from federal income taxation under INT. REV. CODE of 1954, § 501(c)(3), see Note, *The IRS Man Cometh: Public Interest Law Firms Meet the Tax Collector,* 13 ARIZ. L. REV. 857, 879-83 (1971).
25. M. SANDERS, THE PROFESSIONAL RADICAL: CONVERSATIONS WITH SAUL ALINSKY 76 (1970).
26. *See* note 15 *supra.*

problems and his ability to adequately represent their interests. To accomplish this, he must be sympathetic with and fully understand both the people of the community and their problems.[27]

IDENTIFICATION AND INVESTIGATION OF ISSUES

A lawyer's obvious contribution to an interdisciplinary effort is his legal training. The foremost attribute acquired from this training has been posited by one commentator as "skill in the difficult but highly valuable technique of disciplined analysis leading to the use of legal principles in the solution of individual problems."[28]

This ability to sift through the extraneous facts presented by a controversy with the purpose of sorting out only those material factors bearing on the issue at hand, presents a special problem when applied to public interest law. Because of a lawyer's lack of exposure to disciplines outside the bounds of traditional legal education, his search for material factors that raise legal issues often forecloses the identification of nonlegal issues giving rise to highly effective courses of action. Consequently, although the lawyer is uniquely competent to analyze data in terms of applying legal principles to diverse factual situations, the complexity of the issues raised by public interest advocacy demands the utilization of nonlegal experts. The notion of interdisciplinary research contemplates the integration of experts, including the lawyer, into a cohesive team. It emphasizes a division of labor about a given problem, in which each participant couples his own special skills with constant intercommunication with the other members and continually reexamines the issues in light of their findings.[29] The end product is, of course, the responsibility of the whole group.

Issue Identification

The significance of interdisciplinary problem identification can be illuminated best by the use of an example. In *Scenic Hudson Preservation Conference v. Federal Power Commission*,[30] the Consolidated

27. J. GARDNER, THE RECOVERY OF CONFIDENCE 141-42 (1970):

> For those who are honestly concerned to solve the problems of this society, there is hope. There is a road that leads on to a better future. . . .
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> It is the path chosen by the individual who has committed himself to the fight for a better future and is strong enough to face the frustrations of bringing about . . . change.

28. B. CHRISTENSEN, LAWYERS FOR PEOPLE OF MODERATE MEANS 9 (1970). This formulation lists the remaining essential attributes as follows: "The second is a commitment to ethical principles, or at least a 'professional outlook' . . . . The third is a degree of familiarity with the law and with techniques for finding the law. The fourth attribute of the lawyer is possession of practice skills, most of which are acquired through experience. Among these are the skills of advocacy, counseling, drafting and negotiation." *Id.*

29. M. LUSZKI, *supra* note 8, at 10.

30. 354 F.2d 608, 62 P.U.R.3d 134 (2d Cir.), *rev'g* 33 F.P.C. 428, 57

Edison Company of New York applied under the Federal Power Act (FPA)[31] for a license to construct, operate and maintain a pumped storage project[32] along the western shore of the Hudson River. After extensive public hearings, the Federal Power Commission (FPC) issued an order granting the license.

The principal issue before the FPC was whether the project's effect on the scenic, historical, and recreational values of the area would be such that the application should be denied.[33] It subsequently concluded:

> [O]n the balance, the issuance of a license appropriately conditioned to avoid unnecessary harm to the landscape or to other public or private interests, for the construction, operation, and maintenance by Con Edison of the Cornwall [Storm King] project is desirable and justified in the overall public interest . . . .[34]

Following the issuance of the Commission's order, the Scenic Hudson Preservation Conference, a public interest coalition of conservationist organizations,[35] and the towns of Cortlandt, Putnam Valley, and Yorktown petitioned the Court of Appeals for the Second Circuit[36] to set aside the licensing order of the FPC. That court, without dissent, set aside the order and remanded the case to the FPC for further proceedings in accordance with its opinion,[37] noting that the FPA specifies

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P.U.R.3d 279 (1965), *cert. denied sub nom.* Consolidated Edison Co. v. Scenic Hudson Pres. Conf., 384 U.S. 941 (1966), *on remand*, 44 F.P.C. 350, 85 P.U.R.3d 129 (1970), *aff'd sub nom.* Scenic Hudson Pres. Conf. v. FPC, 453 F.2d 463 (2d Cir. 1971), *cert. granted*, No. 71-1219, 40 U.S.L.W. 3485 (U.S. Mar. 24, 1972). *See* Hanks & Hanks, *An Environmental Bill of Rights: The Citizen Suit and the National Environmental Policy Act of 1969*, 24 RUTGERS L. REV. 230, 233 (1970); Note, *Of Birds, Bees and the FPC*, 77 YALE L.J. 117 (1967).

31. 16 U.S.C. §§ 791a *et seq.* (1970).

32. A pumped storage project is a relatively new type of hydroelectric device which generates electric energy during peak-load periods rather than supplying around-the-clock generation. Such a project consists of three major components: the reservoir, the power plant, and the transmission lines. During off-peak periods, energy from external sources would be used to pump water upward from the river below through an underground tunnel to a storage reservoir located in the mountains above. During peak-load periods, the stored water would be returned to the river, generating electricity as it passed through the power plant at the base of the mountain. *See generally* Consolidated Edison Co., 33 F.P.C. 428, 430-34, 57 P.U.R.3d 279, 281-84 (1965).

33. *See id.* at 429, 57 P.U.R.3d at 281.

34. *Id.* at 452, 57 P.U.R.3d at 305-06.

35. The Scenic Hudson Preservation Conference describes itself as "an association of a number of groups and organizations which are interested in the protection of certain sections of the Hudson River Valley which it believes are unique from a scenic, historical and recreational standpoint in order to protect and preserve the resources for this and future generations to enjoy." 33 F.P.C. at 434, 57 P.U.R.3d at 285. While the Storm King project provided the impetus for its organization, Scenic Hudson had planned to remain in operation, regardless of the outcome of this project, to assist and work with other interest groups in the rejuvenation and restoration of the Hudson Valley. *Id.* at 434 n.5, 57 P.U.R.3d at 285 n.5.

36. 16 U.S.C. § 825*l*(b) (1970):

> Any party to a proceeding . . . aggrieved by an order issued by the Commission in such proceeding may obtain a review of such order in the United States Court of Appeals for any circuit wherein the license or public utility to which the order relates is located or has its principal place of business . . . .

37. 354 F.2d 608, 62 P.U.R.3d 134 (2d Cir. 1965).

that a project must be "best adapted to a comprehensive plan for improving or developing a waterway . . . for . . . beneficial public uses, including recreational purposes; and if necessary in order to secure such plan the Commission shall have authority to require the modification of any project and of the plans and specifications of the project works before approval."[38] The phrase "recreational purposes" was construed to encompass "the conservation of natural resources, the maintenance of natural beauty, and the preservation of historic sites."[39]

Applying this standard, the court held that the record was insufficient to support the Commission's decision. "The Commission has ignored certain relevant factors and failed to make a thorough study of possible alternatives to the Storm King project."[40] The relevant factors that were ignored were the practicality of underground transmission "in those areas where the overhead structures would cause the most serious damage"[41] and the fish conservation issue which was ordered to be reexamined in toto on remand.[42]

At the problem identification stage of public interest advocacy, an interdisciplinary team of experts must carefully identify the issues raised by the controversy and then proceed to apply the best available techniques in resolving them.[43] The issues remanded to the Federal Power Commission in *Scenic Hudson* are precisely the type of public interest problem that cannot be resolved on the mere strength of legal precedent or statutory mandate. Rather, the circumstances necessitated researching and analyzing highly specialized data. The concerted efforts of an expert team would have more sharply defined these problems. Moreover, the chemistry of this approach would have led to the identification of less obvious problems or to a reframing of the basis issues.

Thus, the record of the first hearings before the Commission[44] demonstrates that the interdisciplinary approach would have clearly benefited both the parties and the Commission in balancing the interests in conflict: the public interest represented by the development of the power generation sites, against benefits to the public from preserving the area in its natural state.[45] The basic issues[46] do not seem to have been framed by the parties in a precise manner that would have aided the Commission to meet its statutory responsibilities[47] in its consideration of the project.[48] Rather, both parties relied on expert witnesses in

38. 16 U.S.C. § 803(a) (1970).
39. 354 F.2d at 614, 62 P.U.R.3d at 140.
40. *Id.* at 612, 62 P.U.R.3d at 139. *See* text & notes 73-88 *infra.*
41. 354 F.2d at 623, 62 P.U.R.3d at 151.
42. *Id.* at 624, 62 P.U.R.3d at 152.
43. Alonso, *supra* note 6, at 172.
44. 33 F.P.C. at 465 (Examiner's opinion).
45. See note 53 *infra* for a discussion of which party represented the public interest in the *pro bono* sense.
46. *See* text & notes 40-42 *supra.*
47. See 16 U.S.C. § 803(a) (1970); text & note 38 *supra.*
48. *See* 33 F.P.C. at 435-51, 57 P.U.R.3d at 287-305.

the traditional format who, while testifying within their area of expertise, failed to relate their testimony to other basic issues and to provide for a more complete, integrated record.

For example, although the Scenic Hudson Conference contended that the project would "do irrevocable damage to an area of great scenic, historical and recreational" value,[49] it was the Secretary of Interior, in response to an invitation by the Commission,[50] who raised the issue that the project might have an adverse effect upon fish and wildlife resources. The history of the hearings[51] does not indicate that Scenic Hudson, or any other protestor, even called an expert witness to testify with reference to the fish conservation issue—an issue striking at the very essence of Scenic Hudson's contentions.[52] Thus, the Conference failed to relate its testimony to at least one significant issue which, if identified and pursued, would perhaps have substantially affected its attack on the construction of the project.

The failure of both Scenic Hudson and Con Edison to give full play to the fish issue was obviously due to its not being identified. A group of experts acting in a team context could hardly have passed it up, however, assuming an ichthyologist would have been recruited as a logical team member. Whether the result of both parties using the interdisciplinary approach would have been project approval, rejection or modification,[53] the Commission would have had before it a body of testimony both more complete and better organized.

As *Scenic Hudson* exemplifies, effective leadership by the public interest lawyer, coupled with this close interdisciplinary collaboration,[54]

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49. *Id.* at 478 (Examiner's opinion).
50. *Id.* at 483 (Examiner's opinion).
51. *Id.* at 465 (Examiner's opinion).
52. *See* 33 F.P.C. at 483-85 (Examiner's opinion).
53. The *Scenic Hudson* case presents an example of a situation where it may be difficult at first glance to determine which side in fact represented the public interest. Con Edison could have laid claim to representing the public interest since it presented the view favoring electrical power for millions of users who would have directly benefited from the construction of the Storm King project. On the other hand, the various views represented by the protestors could have been in the public interest because the community of interests they represented would otherwise not have been advocated before the FPC. The conclusion that the latter represented the public interest is in accord with the generally accepted definition of the public interest in the *pro bono* sense. *See* Comment, *supra* note 1. *See also* Consolidated Edison Co., 33 F.P.C. 428, 460, 57 P.U.R.3d 279, 311 (1965) (Ross, Comm., concurring and dissenting): "Invariably, when approval is being sought of a regulatory agency, the applicant seeks to influence the decision by claiming that without an immediate decision the world is coming to an end."
54. M. LUSZKI, *supra* note 8, at 135:

> [T]here are certain observable clues or phenomena that characterize close collaboration. These have been divided . . . into four categories.
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> A. *From the standpoint of the research problem*
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> 1. Focus on a single clearly defined problem.
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> 2. Problem definition determined by demands of problem rather than by disciplinary or individual interests.
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> 3. Formulation of the research problem in such a way that all

serves to refine the process of problem identification. Once the problem has been clearly and adequately identified, the task of researching the issues and formulating a strategy for the ultimate resolution of the conflict must become the next important consideration.

Investigation and Research

Thorny problems of urban life—housing, employment, education, environmental pollution, consumer protection and transportation[55]—are the kinds of problems which must be confronted by those who choose to represent the public interest. The analysis of such social conflicts in a given situation by an interdisciplinary team of experts will reveal legal and nonlegal issues which may have an effect on the ultimate resolution of the problem.[56]

Once the research of those issues already identified has begun, the process of problem identification continues to be significant. Some problems are static in the sense that they are subject to a well-ordered research project.[57] In other situations the examination of one issue frequently leads to the identification of another that lends itself more easily to resolution of the problem. For example, assume that a public interest law firm is opposed to the planned location for the construction of an urban freeway because it threatens to divide an old, well-integrated and stable neighborhood, and that its investigation reveals an additional

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participants can contribute to its solution.
4. Existence of collaborative potential as a result of previous work on the problem by more than one discipline.
B. *From the standpoint of theory*
1. Acceptance of a unified over-all theory.
2. Acceptance of a common set of hypotheses and assumptions.
3. Agreement on definition of common concepts.
4. Agreement on operational definitions.
C. *From the standpoint of methodology*
1. Utilization of resources of all relevant disciplines in exploring possible methodologies.
2. Team agreement on most appropriate methodology, including research procedures, relevant variables to be measured or controlled, and methods to be used.
D. *From the standpoint of group functioning*
1. Team members selected on basis of their ability to contribute to research objectives.
2. Approximate equality of influence exerted by the representative of one discipline on another.

. . . .

55. *See* J. GARDNER, *supra* note 27, at 147-84.
56. *See* text & notes 28-29 *supra.*
57. The development of proposed air pollution legislation is an example of a problem which could be subject to a well-ordered research project. The major issues of that problem—scientific data, technology, and economics—can be researched without the threat that undiscovered issues lay hidden which if and when discovered might threaten the validity of the research to that point. Once that sophisticated and detailed data is converted into proposed legislation which seeks to alleviate air pollution, however, it will be subjected to all the rigors of partisan politics. *See* Hill, *The Politics of Air Pollution: Public Interest and Pressure Groups,* 10 ARIZ. L. REV. 37 (1968).

factor: certain property to be condemned for the freeway construction includes previously unrecognized historical landmarks. Thus, a new issue surfaces: whether the historical value of the landmarks outweighs the state's interest to be furthered by the construction of the freeway. Therefore, the rerouting of the freeway may yet be accomplished not because of the original issue—preservation of a social unit—but rather because of the identification of the new issue.

Thus, the significance of this process lies in the possibility that this new consideration may come to be the prevailing factor ultimately deciding the controversy. Situations such as these necessitate the sorting of issues, de-emphasizing those that are only tangential and concentrating the focus of the team's efforts on those factors more likely to be dispositive of the ultimate problem or conflict.

It can easily be seen that a lawyer working essentially alone, though with the assistance of experts, may not in the first place identify many such secondary issues. Moreover, such a system does not necessarily allow for the "brainstorming" process in which several minds centering on a problem from different viewpoints not only present a variety of solutions, but act as catalysts to other team members. While the lawyer should be, or even must be,[58] the central force on such a team, the decision-making process is more effective when it is cross-relational than when it operates unilaterally between expert and lawyer.

This problem-solving technique is hardly new. It has long been known by social movements in their arena. Indeed, the very fluid operational and decisional matrix in which public interest teams are most likely to operate effectively is identical to the flexible model utilized by the social organizer.[59] Yet the management of problem solution in the law firm context presents somewhat different needs. Evidence must be marshalled. Discovered issues must be structured around the central goal. Several considerations are therefore likely to arise once the stage of actual research has commenced.

Since only a certain amount of data can be fed into an interdisciplinary team and used effectively, a threshold problem is to define what information, among all that is available, should be recorded. Additionally, because various disciplines are participating in the research, each with its own recording techniques, a question arises as to how such information should be recorded. Consideration would also be given to the point in time at which research data should be integrated—

58. *See* Comment, *The Public's Interest in the Ethics of the Public Interest Lawyer*, 13 ARIZ. L. REV. 886 (1971).

59. M. SANDERS, *supra* note 25, at 91: "It's very hard to get across how an organizer works—being loose and free, not really knowing himself what the issues are going to be. He knows that . . . you go with the action and that you consciously look for hooks and handles that you can grab hold of, that you can twist and turn and pull and get the reaction that is so important in building a power organization."

toward the end of the project or continually during investigation. Yet another concern will be whether each discipline should restrict its observations to its own area of expertise or whether each participant should also record observations that relate to the other participating disciplines.[60]

This possible excess of data exemplifies the basic value of interdisciplinary team research. Where there are differing viewpoints concerning the evaluation and utilization of empirical data, interdisciplinary discussion will serve to clarify the boundaries of the issues being researched, thereby resulting in a maximum understanding of the problem. Furthermore, each expert has available his own reservoir of information gained from personal contacts within and without the community. Consequently, he will frequently uncover data or analogous solutions that have gone unnoticed by other members of the team. The central goal of solving the major problems—ultimate conflict resolution—may thus be accomplished at an earlier stage.

Expert or Team Member?

The rationale underlying the interdisciplinary approach is founded on the presumption that if several experts analyze a problem using the techniques and "know-how" peculiar to their individual disciplines, all aspects of the problem will be identified and researched. Commentators have voiced their concern that when an expert collaborates in this manner, his identity with his discipline soon fades. Each expert will compromise the intended contribution of his discipline in order to promote organizational harmony when viewpoints differ.[61] The result, it is argued, is an organization of mutated experts whose contribution to the overall interdisciplinary effort deviates so drastically from the expected that the original purpose for bringing the participants together ceases to be furthered. The question therefore arises whether the disciplinary autonomy of the participants should be retained at the expense of the organizational integration of the team's experts.[62]

60. *See generally* M. LUSZKI, *supra* note 8, at 177. It is beyond the intended scope of this work to suggest approaches for design and research methodology for individual problems. *See* R. ACKOFF, THE DESIGN OF SOCIAL RESEARCH (1953); *Symposium, Social Research and the Law,* 23 J. LEG. ED. 1 (1970). *See generally* Cavers, *Science, Research, and the Law: Beutel's "Experimental Jurisprudence,"* 10 J. LEG. ED. 162 (1957); Cowan, *The Design of Legal Experiment,* 6 J. LEG. ED. 520 (1954); Derber, *What the Lawyer Can Learn from Social Sciences,* 16 J. LEG. ED. 145 (1963). *See also* Lempert, *Strategies of Research Design in the Legal Impact Study: The Control of Plausible Rival Hypotheses,* 1 LAW & SOC. REV. 111 (1966); Nagel, *Testing the Effects of Excluding Illegally Seized Evidence,* 1965 WISC. L. REV. 283; Way, *Survey Research on Judicial Decisions: The Prayer and Bible Reading Cases,* 21 WEST. POL. Q. 189 (1968).

61. *See* M. LUSZKI, *supra* note 8, at 261-63 Kornhauser, *supra* note 6, at 292-93.

62. Disciplinary autonomy and organizational integration each possess their own indigenous qualities. "Associated with . . . [disciplinary] autonomy is the emphasis on free inquiry, scientific standards, research creativity, and responsibility to the scientific community. Associated with . . . [organizational] integration is

This question has received conflicting responses. One view emphasizes the need for preserving the borders of the respective disciplines, arguing that integration of disciplinary identities will result in a failure of the research team to realize fully the potentialities which each discipline might contribute.[63] Others suggest that in crossing disciplinary borders, accomplishments may be achieved that are otherwise unattainable:

> [This] does not mean that the disciplines tend to lose their identity. The identities of the disciplines tend to be reasserted after a while anyway. But in the interim, important new understanding is achieved if one allows himself to swing and is not afraid of losing his identity. Moreover, after a person experiences a loss of emotional identification with his particular discipline and then later reasserts the same sort of disciplinary interest, he is no longer the same sort of person he was before this experience.[64]

Neither of the above views, however, precludes the participating experts from being efficiently coordinated, which is of course necessary if research is to be truly productive. Furthermore, it is rarely urged that an investigator should totally relinquish his professional identity for the sake of organizational harmony. In practice, the better view would seem to be a preservation of disciplinary identity at the risk of disrupting the harmony of the organization. The problem may never become series, however, for the strongest experts will probably be those most closely tied to their disciplines. The recruiting criteria would assure the necessary degree of team cohesion.[65]

Once the basic research is completed, the process of analyzing the gathered data and placing it within the proper legal framework begins. During this process, the suggestions of each expert must continue to be solicited if every dimension of the problem is to be dealt with at the crucial stage of ultimate conflict resolution.

PROBLEM RESOLUTION

The development of interdisciplinary collaboration as a method for integrating the various insights and methodolgies into effective legal strategies is merely an academic exercise until such time as it is actually used to resolve a conflict. In solving problems in the public interest, the participating experts ultimately may be required to assume various

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the emphasis on research organization, administrative standards, research identity, and responsibility to the organization." Kornhauser, *supra* note 6, at 292.

63. M. LUSZKI, *supra* note 8, at 261.

64. *Id.* This view raises the narrow question whether disciplinary identity would be reasserted at all during a relatively short project, such as that described *supra* note 57. Although it seems that an accurate answer would require empirical data, it is possible that in a short project where true interdisciplinary collaboration is achieved, disciplinary identity may not be reasserted during the life of the project.

65. *See generally* text & notes 8-27 *supra.*

roles often regarded as only within the expertise of the lawyer.[66] The complexity of problems which arise in controversies affecting the public interest frequently demands consideration of alternative solutions which in many instances will be more effective than the traditional remedy of litigation. Indeed, the realities of problem resolution through litigation give substance to this observation.

The Nonjudicial Forum

Mr. Chief Justice Burger has indicated that "the courts should [not] spearhead social, economic and political change."[67] Coupled with this view is the increasing problem of expanded case dockets that confronts courts: "Largely because of population growth and the enactment of thousands of federal laws in the past half-century, the Supreme Court's docket is . . . swollen, and the lower federal courts have big backlogs despite [the] addition of more judges."[68] State courts experience similar case loads.

Quite aside from the question whether the judicial rather than the legislative or administrative system is better constructed to take on these conflicts, or preferable for policy reasons, the latter may be the more desirable forum for the public interest. In litigation the representation of an individual client's private interest must be balanced against the broader interest of the general public. For example, a corporate polluter may offer to settle out of court with a client whose case provides a vehicle for the realization of long-term reform in the area of environmental protection. Here, a public interest lawyer is faced with the dilemma of either providing his client with immediate relief or attempting to achieve a long-range remedy more in the interest of the broader public good. Some public interest advocates would even posit that it is the lawyer's " 'duty to balance the private interest of his client against the public interest of society' and if the two interests do not so coincide, he should urge his client to take a broader view of his best interest."[69] Many lawyers engaged in law reform can attest that the resolution of this conflict is rarely simple.[70]

The collaboration of experts within a public interest law firm makes possible the identification of various nonlegal solutions which often represent more effective alternatives to litigation. For example, rather than bringing suit against an industrial polluter under nuisance theory, a more far-reaching remedy might be achieved by working for

66. *See* text & note 24 *supra.*
67. The Wall Street Journal, Oct. 28, 1971, at 1, col. 1. *See also* Burger, *Court Reform: Priorities to Methods and Machinery,* 37 VITAL SPEECHES 386 (1971).
68. The Wall Street Journal, Oct. 28, 1971, at 1, col. 1.
69. Riley, *The Challenge of the New Lawyers: Public Interest and Private Clients,* 38 GEO. WASH. L. REV. 547, 550 (1970).
70. *See generally* Comment, *supra* note 58.

the drafting and passage of strict pollution control standards applicable to all industries. Alternatively, a crusade organized by the public interest law firm to educate the community about the injurious effect of pollution might have the effect of generating the sort of public outcry that would encourage the pursuit of self-imposed remedies by the polluter. In either instance, a workable resolution of the conflict would be effectuated without the expense and delay of litigation.

The public interest law firm composed of interdisciplinary personnel is an especially appropriate institution for formulating alternatives to litigation. First, the expertise necessary to research all aspects of the problem and to frame flexible solutions is present. Second, since the participants have been recruited with the understanding that each is not only a disciplinary expert but also an advocate, critic and crusader, the skill necessary to pursue nonlegal courses of action is present.

The practical impact of the interdisciplinary approach in a particular situation may be observed by following the *Scenic Hudson*[71] case to its conclusion.[72] Acting on the remand from the Second Circuit,[73] the Federal Power Commission ordered that further proceedings be commenced before a hearing examiner in which the entire question would be open and all parties could submit testimony.[74]

After an additional 100 days of public hearings, the testimony of some 60 expert witnesses and the introduction of 675 exhibits, comprising a record of more than 19,000 pages,[75] the issuance of an initial decision[76] and a supplemental initial decision[77] by the hearing examiner, the FPC issued its order granting the license.[78]

> In its opinion the Commission reviewed the power needs of the area served by Con Ed and considered possible alternatives to the Storm King project in terms of reliability, cost, air and noise pollution, and overall environmental impact. Concluding that there was no satisfactory alternative, the Commisison evaluated the environmental effects of the project itself. It held that the scenic impact would be minimal, that no historic site would be adversely affected, that the fish would be adequately protected and that the proposed park and scenic overlook would enhance recreational facilities. The Commission found that further undergrounding of transmission lines would result in unrealiability in the delivery of power and would be too costly. The Commission determined that construction of the project would entail no appreciable hazard to the [Catskill] Aqueduct.[79]

71. 453 F.2d 463 (2d Cir. 1971). For full history of the case, see note 30 *supra.*
72. The initial phases of the case are discussed in text & notes 30-42 *supra.*
73. 354 F.2d at 625, 62 P.U.R.3d at 153.
74. 35 F.P.C. 151, 152 (1966).
75. 44 F.P.C. at —, 85 P.U.R.3d at 133 n.7.
76. *Id.* at —, 85 P.U.R.3d at 133 (¶ 11).
77. *Id.* (¶ 14).
78. *Id.* at —, 85 P.U.R.3d at 195-198.
79. 453 F.2d 470.

Eight parties[80] filed petitions with the Second Circuit pursuant to section 313(b) of the FPA,[81] seeking to have the new order set aside on various grounds. That court acknowledged that the issues raised by petitioners were both complex and important, involving the conflict between the needs of a highly technical society and the increased awareness of environmental considerations.[82] Finding that the FPC had fully complied with its earlier mandate and with the applicable statutes, it held that the findings of the Commission were supported by substantial evidence:[83]

> In view of the extensive powers delegated to the Commission and the limited scope of review entrusted to this court, it is our duty to deny the petitions.[84]
>
> . . . .
>
> We do not [however] consider that the five years of additional investigation which followed our remand were spent in vain. The petitioners performed a valuable service in that earlier case, and later before the Commission. By reason of their efforts the Commission has reevaluated the entire Cornwall [Storm King] project. The modifications in the project reflect a heightened awareness of the conflict between utilitarian and aesthetic needs.[85]

The dissent suggests that the service provided by the petitioners should have produced a different result. Judge Oakes, in an opinion that would have reversed the order of the FPC without a remand, stated his reasons for nonconcurrence:

> I dissent because I think the FPC acted arbitrarily, abusing its discretion while purporting to act under the mandate of this court . . .; because its findings in respect to the Catskill Aqueduct are inconsistent and insufficient; because its findings as to the effect of the project upon New York City air pollution are incomplete and fail to take into account relevant factors; and because the Commission's findings and conclusions show that it has not really followed the mandates of the National Environmental Policy Act of 1969 . . . .[86]

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80. Seven of the eight petitioners, Scenic Hudson Preservation Conference, City of New York, the Sierra Club and its Atlantic chapter, the Wilderness Society, Izaak Walton League of America, National Audubon Society, and the National Parks and Conservation Association, objected to the FPC licensing order in toto. The Palisades Interstate Park Commission opposed only a site alternative which provided for the location of the powerhouse within Palisades Interstate Park. The objection of the City of New York was based on the aqueduct and air pollution questions alone. The Izaak Walton League of America rested its objection on the fisheries question and other environmental factors. All other petitioners raised almost all the issues discussed in the opinion. 453 F.2d at 465 n.1.

81. 16 U.S.C. § 825*l*(b) (1970).

82. 453 F.2d at 465.

83. "The scope of review of the Commission's exercise of its authority and responsibility is narrowly limited. The Act, section 313(b) [16 U.S.C. § 825*l*(b) (1970)] provides that '[t]he findings of the Commission as to the facts, *if supported by substantial evidence*, shall be conclusive.'" *Id.* at 467 (emphasis added).

84. *Id.*

85. *Id.* at 481.

86. *Id.* at 484-85.

Both opinions in *Scenic Hudson* exemplify the practical impact the interdisciplinary approach might produce in a particular situation. While the majority praised the petitioners' role in modifying the original plan to conform with statutory standards for the construction, maintenance, and operation of a hydroelectric project,[87] the dissent viewed the Commission's administrative expertise as insufficient to substantiate its final order.

> While judicial deference to adminstrative expertise is required, not every agency is expert in every aspect of science, technology, aesthetics or human behavior. . . . As Professor Jaffe has said, '. . . expertise is not a magic wand which can be indiscriminately waved over the corpus of an agency's findings to preserve them from review.'[88]

A broader question raised by this language of the dissent is the extent to which in a case such as *Scenic Hudson*, where experts raise issues and present evidence that is relevant to the administrative agency's decision yet transcends the agency's single field of expertise, the appellate court should on review substitute its judgment for that of the agency.[89] If the review is broad, the implications of *Scenic Hudson* extend much farther than "the proposition that the Commission is obliged to decide cases upon a full hearing record, and that if the record does not satisfactorily explore all reasonable alternatives suggested in the proceedings, then the Commission is responsible for appropriately expanding the record."[90] As citizen involvement in proceedings of adminstrative agencies continues to increase[91] through public interest law firms, the likelihood of broadened appellate review of administrative decisions seems apparent, especially in those instances where a determination of fact foreign to the agency's expertise has been made the basis of a final decision.[92]

Given the present limited scope of review, however, even if an interdisciplinary team had been employed by Scenic Hudson, it is doubt-

87. *See* 16 U.S.C. §§ 791(a) *et seq.* (1970); 42 U.S.C. §§ 4321 *et seq.* (1970).
88. *Id.*
89. *See* 1 K. DAVIS, ADMINISTRATIVE LAW TREATISE § 30.07 (1968).
90. Bagge, *The Federal Power Commission*, 11 B.C. IND. & COMM. L. REV. 689, 715 (1970). For cases which have applied this doctrine see Northern Natural Gas Co. v. F.P.C., 399 F.2d 953, 973 (D.C. Cir. 1968); Aberdeen & Rockford R.R. v. United States, 270 F. Supp. 695 (E.D. La. 1967); Freight Forwarders Inst. v. United States, 263 F. Supp. 460, 467 (S.D.N.Y. 1967).
91. Hanes, *Citizen Participation and Its Impact Upon Prompt and Responsible Administrative Action*, 24 SW. L.J. 731 (1970).
92. It is beyond the scope of this work to consider such a likelihood. *See* K. DAVIS, *supra* note 89. It should be noted, however, that the interdisciplinary approach as developed herein is not designed as a delaying device to be employed merely to impair the decision-making tasks of the courts and administrative agencies. Rather, the desirability of the approach rests upon the virtue that as all issues are identified and data is presented in an integrated manner, a timely decision can be made which reflects a responsible deliberation of all the material issues without the threat of prolonged appellate review and in a manner which reflects a substantial input of the public interest.

ful, as a conjectural matter, that it could have produced the kind of evidence which would have prevented or drastically altered the Storm King project. That a pumped storage project would ultimately become the Commission's choice among the several considered is evidenced by the conclusions of the Commission as to the reliability,[93] economic savings,[94] and anti-pollution benefits[95] of that system. The contentions of an interdisciplinary team would, of course, have struck at the substance of those conclusions. The conclusion that the pumped storage system was the most appropriate device seems so tightly interwoven with the Commission's view of a great need for additional power generating sources, however, that speculation as to the effect an interdisciplinary team might have produced is discouraging. This appears to be a case in which an agency not only lacked special expertise outside its area of authority, but also may have been an advocate within its administrative area. Thus, the power commission, while adequately performing its regulatory role, may be an advocate of electrical power generally, as against countervailing interests.[96]

This possibility is further illuminated by the Commission's consideration of the scenic impairment which might result from the project.[97] After finding that the pumped storage project would offer "more reliable, cleaner, and cheaper electricity than any other feasible alternative,"[98] the Commission next considered the degree to which the project would be detrimental to aesthetic and environmental conditions. There followed environmental "testimony from a veritable 'Who's Who' of conservation, each witness discussing a different facet of this esoteric and subjective matter."[99] The Commission concluded that the record established that the project, as modified and as licensed, would result in no real scenic damage to the Hudson Highlands.[100] The Commission's own language indicates, however, that they really meant the damage would not be too severe:

> Just as the mountain has swallowed the scar of the highway, the intrusive railroad structure and fills, and tolerates both the barges and scows which pass by it and the thoughtless humans who visit without seeing it, so it will swallow the structure which will serve the needs of people for electric power.[101]

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93. *See* 44 F.P.C. at —, 85 P.U.R. 3d at 139-44 (¶¶ 43-74).
94. *See id.* at —, 85 P.U.R. 3d at 149-56 (¶¶ 94-121).
95. *See id.* at —, 85 P.U.R.3d at 144-48 (¶¶ 75-92). *Compare id. with* 453 F.2d at 488-91 (Oakes, J., dissenting).
96. The Federal Power Commission will not agree with the views expressed here: "It is not a pre-occupation with more and more electric power which moves us." 44 F.P.C. at —, 85 P.U.R.3d at 158 (¶ 149). *But see* 33 F.P.C. at 458, 57 P.U.R.3d at 311 (Ross, Comm., dissenting and concurring).
97. *See* text & notes 107-109 *infra.*
98. 44 F.P.C. at —, 85 P.U.R.3d at 156 (¶ 141).
99. *Id.* at —, 85 P.U.R.3d at 157 (¶ 144).
100. *See id.* at —, 85 P.U.R.3d at 159 (¶ 154).
101. *Id.* at —, 85 P.U.R.3d at 158 (¶ 148).

It is true, however, that the project was modified to place at least the powerhouse entirely underground.[102]

Regardless of the motivation of the Commission, once a decision is made to approve the basic policy opposed—to locate a proposed project at the requested site in this case—there still remains the possibility of substantial impact by an interdisciplinary team. It is a little late on remand for the team to define the basic issues, but the court of appeals had identified those issues not satisfactorily probed during the initial hearings before the Commission.[103] In the subsequent hearings,[104] a phenomenal amount of expertise was often brought to bear, but not in the interdisciplinary context. The chronicle of *Scenic Hudson* demonstrates how the resolution of the licensing application of Con Edison could have been hastened if the interdisciplinary approach had been utilized.

The re-examination of the fish conservation issue commenced in 1965 with a 3-year fishery study of the Hudson River.[105] The study concluded that although additional research would be required after construction of the plant, the proposed project was not likely to have a significant effect on most fish life.[106] Nonetheless, fish protection devices designed to minimize the overall hazards of water intake were added to the tailrace.[107] The Commission also relied on a hatchery operation, which experience elsewhere had indicated would be capable of replacing any losses of fish attributable to the project.[108] Scenic Hudson's position on hatcheries was that "they are generally not feasible at all; that if feasible elsewhere, they are not feasible in the Hudson; that hatchery fish are sterile; and that costs are prohibitively high."[109] The Izaak Walton League joined this position, adding that "the myriad problems relating to total ecology of the river had not been considered."[110] The Commission believed these positions were not supported be evidence susceptible of reasonable measurement.[111] that evidence which could be scientifically measured supported the conclusions that hatcheries would supplement natural spawning[112] and that "no material

102. *See id.* at —, 85 P.U.R.3d at 159 (¶ 156).
103. *See* text & note 44 *supra.*
104. *See* text & notes 75-78 *supra.*
105. 44 F.P.C. at —, 85 P.U.R.3d at 170 (¶ 220). The study was sponsored by the New York State Conservation Department and the U.S. Fish and Wildlife Service; it was financed by Con Edison. *Id.*
106. 44 F.P.C. at —, 85 P.U.R.3d at 170 (¶ 221).
107. *Id.* at —, 85 P.U.R.3d at 171 (¶ 224). The new design substituted finer mesh screens, which not only guaranteed less intake of fish larvae, but also reduced the velocity of the water at the intakes sufficiently to allow them to swim away.
108. *Id.* at —, 85 P.U.R.3d at 175 (¶ 245).
109. *Id.* at —, 85 P.U.R.3d at 174 (¶ 243).
110. *Id.* at —, 85 P.U.R.3d at 175 (¶ 244).
111. *Id.* at —, 85 P.U.R.3d at 175 (¶ 247).
112. *Id.* at —, 85 P.U.R.3d at 176 (¶ 250).

ecological detriment will result from construction and operation of a pumped storage project."[113]

An interdisciplinary team composed of engineers, ichthyologists and conservationists would have approached the fish conservation issue in a much different manner than did Scenic Hudson's experts individually. Collaborative problem identification would have revealed that at Con Edison's Indian Point nuclear facility, just 14 miles downstream from the Storm King site, there had been a "substantial destruction of fish."[114] With respect to this, the Commission noted that "[t]he record . . . does not set forth with any particularity the cause thereof," and it would therefore not relate the undiscovered causes of fish damage at the nuclear plant to the pumped storage project.[115] Interdisciplinary research would have ascertained those causes, their relation to nuclear technology, and whether the causes of fish damage at Indian Point were applicable to the Storm King project. The outcome of that research may have materially modified the conclusions of the Commission.

Regardless of the effect that an interdisciplinary team might have had, the Commission's treatment of the site selection issue raises an obstacle any interdisciplinary team will face at the problem resolution stage of public interest advocacy. That obstacle relates to the accuracy and credibility of all evidence as interpreted and evaluated by the fact-finder. Credibility, in this instance, relates to both the evidence and the reputation of the expert who presents it. Thus, while the interdisciplinary team's testimony may be more accurate, opposing experts may, nonetheless, be more credible or their evidence might be subject to greater receptivity.

In this case, core samples and other tests at the alternative sites had been made to determine the feasibility of construction in the various geologic strata.[116] Tests had not been made at the site ultimately recommended by the Commission's staff, however. In opposing that site, Scenic Hudson strongly urged that it would be courting disaster to approve the site without further testing. They also pointed to previous problems in the construction of the Catskill Aqueduct that might again arise when blasting on the power project began. Their evidence in this regard was accurate,[117] but the Commission found the testimony of opposing experts as to the general geologic structure of the area more persuasive. So in spite of the fact that the structure in the immediate area was not known, the eloquence of those recommending the site prevailed.[118] Attempts by the state parks commission to defeat that

113. *Id.* at —, 85 P.U.R.3d at 176 (¶ 251).
114. *Id.* at —, 85 P.U.R.3d at 175 (¶ 249).
115. *Id.* at —, 85 P.U.R.3d at 175-76 (¶ 249).
116. *Id.* at —, 85 P.U.R.3d at 185 (¶¶ 310-17).
117. *See* 453 F.2d at 479-80.
118. While it licensed Site 1, the Commission approved Site 2, where no tests had been made, in the alternative. 44 F.P.C. at —, 85 P.U.R.3d at 188 (¶ 335).

site on scenic and recreational grounds were similarly defeated.[119]

The interdisciplinary approach is an appropriate device to overcome such obstacles. A team presentation comprised of integrated expert testimony from several disciplines, eloquently combining and interrelating the various issues and representative of the public interest, would present to a fact-finder a very persuasive package. Such a package is likely to cause an agency to reconsider the potential impact of its decision in a myriad of areas before it decides once again to pursue a single course with only a glance at collateral issues. Moreover, because appellate review with its accompanying nuisances[120] will provide an opportunity for reconsideration of administrative decisions—either limited or, as in Judge Oakes' view,[121] more complete—it is imperative that a record be built which properly includes a satisfactory exploration of all reasonable issues. The risks of failing to build such a record are the promise of unnecessary delay,[122] the needless expenditure of vast sums of money,[123] and adverse results on appeal. Interdisciplinary collaboration offers one approach by which that record can be built more carefully and those risks correlatively eliminated.

If the interdisciplinary approach can produce this effect, it then becomes important to consider the potential parameters of victory in the *pro bono* sense. In cases like *Scenic Hudson*, it may be too much to hope for a denial of the entire project. "Winning," to protestor-public interest groups, may be obtaining modifications of the utility company-applicant's proposed plans, in the face of the agency's belief in the need for additional power generating units. The presentation of argument and proof that the public interest would best be served by not granting approval at all should therefore be planned with the thought that victory may be modification of the proposed plan.

CONCLUSION

The practice of law *pro bono publico* promises many novel challenges for the public interest lawyer, only one of which is the diversity and complexity of the problems he must confront. Because public interest problems often raise issues beyond the traditional expertise of the legal profession, new and dynamic approaches that can effectively and efficiently resolve those problems are needed in order that the public interest may be adequately represented.

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119. *Id.* at —, 85 P.U.R.3d at 186-88 (¶¶ 324-340).

120. *See* Ramey & Murray, *Delays and Bottlenecks in the Licensing Process Affecting Utilities: The Role of Improved Procedures and Advance Planning*, 1970 DUKE L.J. 25.

121. *See* note 91 *supra.*

122. The application for the license by Con Edison was filed with the FPC on January 29, 1963. The Second Circuit's recent affirmation of the grant of that license by the Commission was issued on October 22, 1971. The case is not finished of course. See history *supra* note 30.

123. *Cf.* note 14 *supra.*

Offering a workable methodology for confronting this challenge, the interdisciplinary approach would integrate the varied expertise of collaborating disciplines. This approach contemplates a team of interdisciplinary experts whose mission would be to use their many resources to resolve the conflict in a fashion most suitable to the public interest.

The history of the *Scenic Hudson* controversy exemplifies both the harmful consequences which result from the traditional use of experts in the law and the meritorious potential that the interdisciplinary approach would introduce to problem identification, research, and problem resolution. The desirability of the interdisciplinary approach is based on the presumption that as experts look at a problem through the knowledge and experience of their various disciplines, issues will be identified and researched in a manner that provides an opportunity for a timely, more complete and less expensive resolution of the problem.