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CLUG, Community Land Use Game: Player's Manual with Selected Reading and Instructors Manual with Materials, by Allan G. Feldt, Anthony B. Dotson, Margaret Warne Monroe, David S. Sawick

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BOOK REVIEW

CLUG, COMMUNITY LAND USE GAME: PLAYER'S MANUAL WITH SELECTED READINGS AND INSTRUCTOR'S MANUAL WITH MATERIALS, by Allan G. Feldt with Anthony B. Dotson, Margaret Warne Monroe and David S. Sawicki. New York: The Free Press. 1972. Pp. xi, 206, $4.95.

Land use casebooks and textbooks[1] singularly fail as teaching tools with respect to two important aspects of land use planning: first, they fail to impress upon the student that crystallized and sterilized facts, as they appear in appellate decisions, or even in descriptions of appellate decisions, simply do not happen as nicely and neatly arranged as they appear; and second, they fail to emphasize adequately the dual nature of the predominant American land use control system, with its "public" negative controls and its ultimate reliance on the decisions and actions of "private" developers to build what is planned and profitable.

Appellate cases are in many ways the most misleading of reality substitutes. The designations appellant and appellee (are these persons real?), the dry statement of facts and the analytic recitation of the legal issue may mislead the student about the circumstances which led these contestants to court. This is especially true in land use conflicts, for each individual's decision is intricately related to many other personal and institutional decisions.

Of course such condensation serves the real world. For example, opinions serve as checks on the decisions of an appellate court. It is less likely to be arbitrary and capricious if it is forced to condense, summarize and articulate the "facts" upon which it bases its conclusions. Moreover, study of such cases is a useful pedagogical tool, for the cases illustrate how courts operate and, most importantly, they serve as materials for the development of important analytic tools. But reliance on cases alone, or worse, reliance on summaries of cases, is invidiously misleading, especially

1. A list of currently available law teaching books follows: J. BEUSCHER & R. WRIGHT, CASES AND MATERIALS ON LAND USE (5th ed. 1969); D. HAGMAN, URBAN PLANNING AND LAND DEVELOPMENT CONTROL LAW (1971); C. HAAR, LAND-USE PLANNING; A CASEBOOK ON THE USE, MISUSE AND RE-USE OF URBAN LAND (2d ed. 1971); J. KRASNOWIECKI, CASES AND MATERIALS ON HOUSING AND URBAN DEVELOPMENT (1969); G. LEFCOE, LAND DEVELOPMENT LAW, CASES AND MATERIALS (1966); D. MANDELKER, MANAGING OUR URBAN ENVIRONMENT, CASES, TEXT AND PROBLEMS (2d ed. 1971). Books related to property, local and urban government and land and local finance may also supplement this list.

in a course devoted to dynamic concerns, such as planning. In such a course a student must learn to appreciate the change, uncertainty, unpredictability and interrelatedness of the true facts. If a land use planning course does not help a student learn this, the student will never appreciate how difficult it is for social architects to design a system to cope with the protean facts of modern urban life.

It is also appropriate that a casebook or textbook examining American land use planning should concentrate upon negative controls. These, after all, are the principal tools used in our system to regulate land use.[2] However, the limitations of negative controls should be emphasized. For example, the student must recognize that if a tract is limited by state decree to residential uses, residential development will not necessarily occur.

The crucial limitation inherent in negative planning devices is that a private developer will build only what is profitable, and if the city restricts him from doing this, he may build nothing. Profit is a developer's first concern. The private developer's assessment of potential profit ultimately determines whether the municipality will get what it wants, or what it is willing to have. If a land use course is limited to the study of cases in which a municipality has passed an ordinance and a developer has done something either in accord, or not in accord, with this ordinance, resulting in litigation between the municipality and the developer, then the student may never realize the important symbiotic relationship between private, profit decisions and public, restrictive controls.

The Community Land Use Game, "CLUG," an operational gaming device, is the perfect supplement to a traditional casebook or textbook in a land use planning course for it provides a mechanism by which students can learn (1) dynamic complexities and interrelations and (2) the importance of private decisionmaking.[3] The game allows the student to learn what the books cannot teach.

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2. D. MANDELKER, THE ZONING DILEMMA, 45-51 (1971).

3. In reviewing a game-book, a reviewer who has used the game should disclose how he used it, for many of his opinions may be attributable to his method of use, rather than the book itself.

In the fall of 1972 I taught a 45 hour course in land-use planning to approximately eighty second and third year law students. Thirty hours of the course, two hours per week, were devoted to analytic discussions of the materials in a traditional land use casebook. The other one hour per week was devoted to CLUG.

During the summer prior to teaching this course, I spent about fifteen hours training eight student operators and developed most of the paper work needed. These eight students then managed the games with the assistance of two accountants. When school started the class was divided into twenty teams, and these teams were divided into four laboratory sessions.

During the semester, the teams wrote periodic two or three page memoranda on various questions posed in the Player's Manual. I regularly met with the eight instructors to discuss game developments and I frequently visited laboratory sessions. These sources supplied me with a constant flow of information about what was occur-

The format of the Player's Manual is simple. First, the basic game is explained. Then, several experiments are described, each one designed to add some new aspect, or decision-influencing factor, to the basic game. Each of these experiments is followed by some selected readings designed to stimulate more rigorous thinking about the factors in the game. Some questions are also asked to assist the students in coming to grips with the mass of raw materials. Scattered throughout the Player's Manual and the Instructor's Manual are suggestions for running the game simply, as well as several tear-out forms to help the student remember the rules and parameters. Additionally, paper playing pieces, designating different land uses, are provided, but these are too flimsy for extended play; solid use indicators, such as Monopoly hotels, must be provided.

In basic CLUG there is a game operator who represents the "world" outside of the closed system of the game. At first, he owns all the land, represented by a board with 144 lots on it, and initially he is in the position of providing all players with whatever services they may need, *e.g.*, an office staff if a business is developed, local and more substantial services if residences are developed. The board is supplied with a transportation system, a terminal to the outside world and a utility plant. Ideally, three to five teams (of three to five players each) are the participants, and each team is initially given $100,000.

One of the most interesting aspects of basic CLUG, and a realistic one, is that it is uncertain what will win the game. Each team tries to enhance its own growth either absolutely, regardless of the fact that others might be getting rich too, or relative to the other teams in its game. Participants make two kinds of decisions: individual team decisions and cooperative community decisions. In the former group each team must decide whether or not (and how) (a) to buy land, (b) to develop particular types of uses, (c) to insure against loss and depreciation, (d) to employ or to be employed and (e) to provide for a battery of required services. In the latter group, each community must decide whether or not (and how) (a) to provide utility services, (b) to tax, (c) to provide other community services and (d) to finance the assorted community services. In both cases, all players must keep in mind varying shipping and transportation costs.

At this point, it should be obvious that basic CLUG is not a perfect

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ring in the game, thereby allowing me to relate it to class and to relate the class materials to it.

The students were polled after the course and most believed the game allowed them to learn complexities which they could not have learned from either the book or me. Most felt the game was fun (and this is not to be underestimated in law school), but about half believed that there were noticeable diminishing returns after ten weeks.

analogue of reality. The game is absurdly simplistic. For example, how can one even attempt to reproduce the reality of land use without incorporating race and class elements? Or, how can anyone believe that profit-seeking is everyone's motivation? Indeed, the game is a highly abstract and stylized rough model of a simple view of the world; and as such, it provides not reality reflection but (and the importance of this is not to be underrated) a very useful tool for teaching dynamic change and the importance of the individual in our free enterprise system. The student may not learn how the world really operates, but he will be more sensitive to its workings.

Each decision in the game, both private and community, is symbiotically related to several other decisions. For example, if Team Red proposes to build an industry, it must meet certain expenses. The operator is prepared to sell office service to Team Red at a given price; but if Team Red needs a cheaper price, it must rely on some other team, let us say Team Blue, to build an office-service-supplier and sell it these services at a reduced price. Or, let us suppose that Team Yellow is operating an industry at full capacity and can't afford to have its labor supply jeopardized, but that all of its employees are from Team Green. If Team Green is unwilling, or unable, to insure its labor supply against an unforeseen catastrophe, Team Yellow may find it propitious to insure on behalf of Team Green.

But the learning of dynamic complexities goes way beyond the learning of symbiotic interrelations. For example, one of the axioms of basic CLUG is that the closer an industry is to a terminal, the cheaper are its transportation costs. In one game actually played by the students, the operator varied the basic CLUG rules slightly and offered to sell a new terminal to the community. The community agreed to buy it, believing this new outlet (at the right price) would be a boon to the community. However, the announcement that a terminal would be built three rounds in the future touched off (1) a wave of speculative land buying, (2) resulting in a huge drain on the available capital resources in the community, (3) resulting in a decline in the insurance and operating expenditures of the already developed areas, (4) resulting in an inability to cope with certain unforeseen catastrophes, (5) resulting in a net loss to the community. To tell a student this is one thing; it is better for a student to learn this complexity by experiencing it.

Once the basic CLUG game is mastered, the student is ready for more advanced work. As noted, several complicated experiments are offered, supplementing the basic game with, *inter alia,* more involved and complex government systems, financing systems, land use control devices, and transportation systems. The design of the book reminds one of a

laboratory chemistry course. First one shakes the tube with three elements, and then with four. To some extent, different results are attributable to the newly introduced element. At a minimum these experiments are useful for they sensitize a student to factors which may cause changes in the urban environment. Most importantly, the students learn without being told; they are forced to draw conclusions for themselves. Thus, rather than being told that a variance in a zoning scheme can either provide needed flexibility or allow uncontrolled leakage, the student can play with several systems, regardless of how closely they parrot reality, and make his own judgments about what factors are causing different results.

In Experiment IV, Part 1, basic CLUG is amended in a zoning experiment. Each lot is zoned for a particular use, and variances are granted by weighted chance (*e.g.*, the more extreme the variance request, the less likelihood that it will be granted). The success of the game is, in part, measured by how close to a predetermined end-state the community actually develops.[4] In Experiment IV, Part 2, an additional nonprofit team is introduced into the game. It has the powers to buy land on the market, to exercise the power of eminent domain, and, having once acquired land, to lease or sell it to private participants on the condition that they develop it consistent with a particular use.[5] The success of this experiment is, in part, also measured by how close to a predetermined end-state the community actually develops.

All students who played both parts of this experiment agreed that the rules of the nonprofit team game permitted more effective control of development. Precisely why its control device was more successful than the zoning device was the subject of much student debate, but there was no clear resolution. However, indicative of the subtle sensitivity engendered by this experiment, the debate revolved about whether the problem with the zoning game was that it allowed variances and that they were granted or denied arbitrarily, or whether the virtue of the nonprofit team game was that it did not provide for variances, or, if it did (it could lease or sell land for other than the predesignated end-state use), it was such a subtle, well-controlled type of variance. Mere labeling of devices was not important. It was how they worked in a complex, symbiotic area which was important. The students sensitized themselves to this.

Even though these experiments are useful, this part of the book is

4. Several commentators have been very critical of planning to an end-state goal, emphasizing that proper control focuses on the process of planning, not the goal. *See* Krasnowiecki, *The Basic System of Land Use Control: Legislative Preregulation v. Administrative Discretion*, in THE NEW ZONING: LEGAL, ADMINISTRATIVE, AND ECONOMIC CONCEPTS AND TECHNIQUES (N. Marcus & M. Groves eds. 1970).

5. For an example of this type of control see Berman v. Parker, 348 U.S. 26 (1954).

troublesome. First, the experiments can be confusing since some students may be misled into thinking that they are working with a true reality analogue. Second, the experiments, rather than simply presenting a dynamic game, are loaded to present the author's point of view. Third, if the game is juxtaposed with a good land use planning book, with only the typical drawbacks of such books that I have enunciated, then too many experiments after the student has experienced and learned dynamism, complexity, symbiotic relations and the importance of private decision-making will afford few pedagogical returns, and may bore the more alert.

CLUG is not a reality simulation. To label one of the experiments a Zoning game, and to divide the board into exclusive use lots, and even to introduce a variance system seems misleading. In truth, the experiment called Zoning has little to do with its real world referrant. In the game, each parcel is zoned differently; in the real world, areas and neighborhoods are commonly zoned. In the game, a variance is granted, or not granted, according to the throw of the dice; regardless of how accurate this method may appear to zoning experts as a description of results in the real world, the procedures and processes of the real world are very different.[6] The student may be sensitized to factors in land use control by the experiments, but he runs the risk of being duped into believing he is learning something accurate about reality.

The CLUG author has a point to make. Again, Experiment IV serves as a useful example. First, there are the not-so-subtle ways of shaping student opinion. The experiments are accompanied by readings, and the readings in this experiment are one-sided anti-zoning tracts.[7] An editor of a supposedly neutral game designed to allow students to learn for themselves owes his readers a less biased selection. The author of CLUG favored a very active land control corporation, and the readings clearly left the student with the distinct impression that zoning was nothing but a

6. R. BABCOCK, THE ZONING GAME (1966).

7. Reps, *Requiem for Zoning*, in PLANNING, 1964: SELECTED PAPERS FROM THE ASPO NATIONAL PLANNING CONFERENCE 56 (American Society of Planning Officials ed. 1964) [hereinafter cited as *Requim for Zoning*]; Reps, *The Future of American Planning*, in PLANNING, 1967: SELECTED PAPERS FROM THE ASPO NATIONAL CONFERENCE 47 (American Society of Planning Officials ed. 1967).

Reps' basic position is that

> [z]oning is seriously ill and its physicians—the planners—are mainly to blame. We have unnecessarily prolonged the existence of a land use control device conceived in another era when the true and frightening complexity of urban life was barely appreciated. We have, through heroic efforts and with massive doses of legislative remedies, managed to preserve what was once a lusty infant not only past the retirement age but well into senility. What is called for is legal euthanasia, a respectful requiem, and a search for a new legislative substitute sturdy enough to survive in the modern urban world.

Requiem for Zoning, supra, at 56.

historical anachronism.

Second, as noted, one gauge of success in Experiment IV is the extent to which the community development is consistent with a predesignated end-state. Of course, it would be easier for a community to get to this end if this predesignated plan was not counter-economic. That is, if the private, profit-oriented decisions in the game would have led the community to the predesignated end-game without any controls other than the rules of basic CLUG, then it is not saying much to assert that the community got where it was supposed to with controls. In the nonprofit team game, the predesignated end-game was more compatible with the economic factors which would independently motivate players than the end-game given in the zoning game. Thus the community did better in the nonprofit team game. Students might conclude that its method of control was better than the zoning method of control. Regardless of the eventual outcome of this substantive debate, the game unfairly biases a student to believe one type of control is better than another. An equally plausible position, based on the game alone, is that the predesignated end-game simply made it appear that a particular type of control was better.[8]

Finally, with law students there is a process of diminishing returns with too much of the game. The important learning takes place by simply playing. Not much is added to this by adding one form of complexity on top of another, especially when the game is such a highly abstract and stylized version of reality. If the game is used as a casebook or textbook supplement, many of the experiments should be ignored.

CLUG is a simple, manageable game, but it is not nearly an manageable as the author suggests. Certainly a computer is unnecessary; the various factors are kept to a minimum.[9] This has its advantages, for the game intimidates no one, all participants can take an active role, and once it is conceded that the purpose is not primarily urban reality simulation, but instead development of an appreciation for change and dynamism and the importance of private decision-making, nothing is lost. On the other hand, the game rapidly becomes too complicated to rely simply on the memories of participants. As in any complex system, there must be elaborate paper-work controls. The CLUG author provides some helpful

8. A parameter of CLUG is that money only can flow into the community if there is industry and industry will develop only if it can keep its costs to a minimum by locating near a terminal. In the zoning game, one terminal is given, and within three blocks of this terminal only four industries can be built, two of which are a block away. In the nonprofit team game, one terminal is again given, but within three blocks of this terminal eight industries can be built, two adjacent to the terminal, five one block away and one two blocks away.

9. There are more complicated games in existence. *See* Degnan & Haar, *Computer Simulation in Urban Legal Studies,* 23 J. LEGAL ED. 353 (1970).

forms, but these are inadequate. Students cannot provide the controls for themselves without many time-consuming, nonproductive false starts. Indeed, the course instructor must develop a paper system for managing and running the game. For the land use planning instructor who is willing to develop a control system, CLUG provides an excellent teaching tool to supplement the traditional land use planning books, allowing students to learn important concepts which mere words cannot teach.

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