

JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS

I. MANUSCRIPTS

B. Unpublished Books

2. Outline for A Contemporary Approach to Real Estate Appraisal and Analysis, October 26, 1988: Proposed book by James A. Graaskamp and Gene Dilmore which includes drafts of Chapter I, II, and III, two drafts of the outline for the book and correspondence from Gene Dilmore spanning 1978-1988

Proposed Outline

A CONTEMPORARY APPROACH TO REAL ESTATE APPRAISAL AND ANALYSIS (Graaskamp 10/26/82)

(pp are book pages)

A Word from the Authors

I. Introduction to the Appraisal Process

Jim
20 pp

- A. Historical evolution of systematic value theory applied to real estate
- B. The classical appraisal process
- C. The contemporary appraisal process
- D. The historical evolution of the relationship of the appraiser to other professional (i.e., accountants, lawyers, engineers, architects, environmental specialists)
- E. Appraisal - A limited application of the larger process of real estate analysis - an economic synthesis of multiple disciplines
- F. Outline of the appraisal process and report.

II. Property Analysis to Identify Alternative Uses

Jim
25 pp

- A. Physical attributes of site
- B. Physical attributes of site improvement
- C. Physical attributes of structural improvements
- D. Legal attributes of site
- E. Legal encumbrances on improvements
- F. Other legal interests acquired with fee
- G. Linkage attributes of site and improvements
- H. Dynamic attributes of site and improvement
- I. Environmental attributes of site and improvement
- J. Statement of potential alternative uses

III. Market Analysis for Alternative Uses

Gene
30 pp

- A. City growth factors and impact on space demand
- B. Neighborhood and trading area demand and supply trends

- C. Profile of probable space occupant needs and limits on effective demand
- D. Selection of most probable use of property
- E. Description of most probable buyer's motivation and decision criteria

IV. Selection of Appropriate Appraisal Method

Jim

15 pp

- A. Inference from relevant completed transactions
- B. Simulation of buyer decision process
- C. Utilization of normative economic models

V. Inference from Relevant Completed Transactions - Market Comparison Approaches

Gene

25 pp

- A. Inferential statistics
- B. Simple linear regression
- C. Selection of comparable sales
- D. Selection of unit of comparison
- E. Selection of unit of adjustment

VI. Multiple Regression

Gene

25 pp

VII.

Jim

25 pp

- A. Euclidian distance for ranking comparables
- B. Definition of value range, probable price, and qualifying terms of sale.

VIII. Simulation of Buyer Decision Process

Jim

40 pp

- A. Concept of simulating buyer's decision process
- B. Rules of thumb
- C. Financial forecasting and simulation
- D. Revenue forecasting
- E. Expense forecasting
- F. Financial charges to operating income (capital structure charges)
- G. Rule of federal income tax in valuation process
- H. Problems of assuming a reserve price

see 150 - original V.D. to go ahead with

IX.

Gene

30 pp

- A. Discounted cash flow concepts and methods
- B. Problems in the definition and forecasting of real estate revenues
- C. Problems in the definition and forecasting of real estate expenses
- D. Deriving alternative rates of return from market behavior
- E. Discounted cash flow
- F. Deriving rates of return from the market

X. Utilization of Normative Economic Valuation Models

Gene

25 pp

- A. Replacement costs and the theory of substitution
- B. Measuring accrued depreciation
- C. Valuation of land as though vacant
- D. Traditional methods of income capitalization
- E. Use and misuse of the Ellwood process

XI. Testing and Qualification of Valuation Estimate

Jim

20 pp

- A. Testing valuation conclusion for consistency with criteria of most probable buyer
- B. Testing value conclusion for relevancy to appraisal function
- C. Statement of key assumptions made by the appraiser
- D. Statement of key assumptions provided by the client
- E. Restatement of property interests appraised
- F. Identification of limitations inherent in data and methodology

XII. Special Problems in the Practice of Appraisal

Jim

20 pp

Some
contri-
butions
from
Gene

- A. The distinction between appraisal, analysis, and counseling
- B. The distinction between feasible, financially viable, and socially desirable
- C. The professional dilemma of objectivity and thoroughness versus fee structure and client perceptions of benefit
- D. Professional ethics
- E. Client ethics
- F. Professional liability

?



F. Institutional rigidity and misconceptions in the market for appraisal services

G. Professional structure of future (clinic appraisal) ?

Proposed Outline Revised

A CONTEMPORARY APPROACH TO REAL ESTATE
APPRAISAL AND ANALYSIS

1. Introduction

- Gene A. "Three Approaches"
Jim B. Contemporary Appraisal
Chance - Inference
Beauty - Simulation
~~Truth~~ - Normative
ORDER
C. Market Inference
- Jim 2. Annotated Outline of Contemporary Appraisal
- Jim 3. Productivity Analysis
Alternative use scenarios for subject property
Selection of most probable use - productivity potential and motivation
Old VII of report outline
- Jim 4. Market Inference - Principles and Data Gathering
- Gene 5. Quality Points/Sq. Ft. Method
Screening Techniques
- Gene 6. Market Comp Method
- Gene 7. Fuzzy Sets Method
- Gene- 8. Internal Consistency in the Appraisal
Prelim
Jim-Final
- Gene- 9. Implications for the Appraisal Process
Prelim
Jim-Final

OUTLINE: SECTION HEADINGS

Chapter 5: Screening Methods

- I. The distribution of the market sample
 - A. Measures of central tendency
 - 1. Mean
 - 2. Median
 - 3. Mode
 - B. Measures of dispersion
 - 1. Average deviation
 - 2. Standard deviation of the mean
 - 3. Standard deviation of the median
 - C. Program: Sample
- II. Standard deviation as one criterion of efficacy of the market comparison approach
- III. Composite comparable
- IV. Simple linear regression
 - A. Assumptions and mechanics of application
 - 1. Example:
 - 2. Program: MRA1
 - B. Interpretation
 - 1. Coefficient of determination
 - 2. Standard estimate of the estimate
 - 3. t values
 - 4. Standard error of the forecast
 - 5. Residual analysis
 - 6. Durbin-Watson statistic
 - 7. A-statistic
- V. Multiple regression
 - A. Assumptions and mechanics of application
 - B. Interpretation
 - 1. Beta coefficients
 - 2. Standard error of the forecast
 - 3. Multicollinearity

OUTLINE: SECTION HEADINGS

Chapter 6: The Quality Point Rating Method

- I. Before the quality point ratings:
Prior quantitatively measurable adjustments
 - A. Time
 1. Consumer Price Index
 2. Farm price index
 3. From the market
 - a. Sales and resales
 - b. Regression analysis
 - B. Size
 1. Judgmental
 2. From the market
 - a. Adjusted sales
 - b. Size adjustment program
 - C. Financing terms
 1. Cash equivalence
 - a. The arithmetic
 - b. The market's interpretation
 2. Other special terms
- II. Genesis of the quality point method
 - A. In the beginning: Ratcliff
 - B. The second day: Graaskamp
 - C. The third day: Dilmore
- III. Establishing the unit price or rental to be measured
- IV. Establishing the pertinent attributes
- V. Weighting the attributes
 - A. Preliminary judgmental approach
 - B. Computerized analysis of preliminary weights
 1. Program: QP
 - a. An apartment example
 - b. An office building example
 - c. An acreage example
 - d. to be announced
- VI. After the quality point ratings
 - A. Externalities
 - B. Probable price conclusion and confidence interval

OUTLINE: SECTION HEADINGS

Chapter 7: Market Comp Method

- I. Introduction
- II. Identification of data set
- III. Gathering data
- IV. Ordering the data
- V. Preliminary statistical analysis
 - A. Cross tabulation
 - B. Histogram
 - C. Correlation analysis
 - D. Regression
 - E. Summary of findings
- VI. Identifying the pertinent attributes
 - A. Multiple regression
 - B. Analyzing attributes and coefficients
 - C. Identifying any needed transformations
 - D. Summary of findings
- VII. Establishing the data file
- VIII. Running Market Comp
 - A. Evaluation of results
 - B. Rerunning
 - C. Presentation of final results

OUTLINE: SECTION HEADINGS

Chapter 8: Fuzzy Sets Method

- I. Introduction
- II. Theoretical considerations
 - A. The principle of incompatibility
 - B. Classical logic and fuzzy representation
 - C. Repealing the law of the excluded middle
 - D. Vagueness/sorites - How high is a pile of rocks?
 - E. Crisp sets/fuzzy sets
 - 1. The notion of membership in a set
 - 2. Nice distinctions revisited: Uncertainty/imprecision
- III. Empirical considerations in appraisal applications
 - A. Quantitative/qualitative attribute assignments
 - B. Concordance/discordance
 - C. Program: Fuzzy
 - 1. How it works
 - 2. An application
 - D. Program: Wuzzy
 - 1. How it works
 - 2. An application

OUTLINE: SECTION HEADINGS

Chapter 9: Internal Consistency in the Appraisal

- I. Introduction/disclaimer
- II. Summary of salient facts and conclusions of a report to be reviewed
- III. Land Value
- IV. Replacement cost and depreciation
- V. Market comparison approach
 - A. Profile of the raw data
 - B. Profile of the adjusted data
 - C. Check for double counting of variables
 - D. Consistency of plus vs minus adjustments
 - E. Percentage adjustments
- VI. Income factors
- VII. Program: "Reviewer"
 - A. Gross annual multiplier
 - B. Overall rate
 - C. Equity dividend
 - D. Debt service coverage
 - E. Breakeven ratio
 - F. Equity payback period
 - G. Relationship of projected growth rates for income and expenses
 - H. Backdoor check

CHAPTER 1

INTRODUCTION TO THE APPRAISAL PROCESS

A. The Need for Contemporary Appraisal Methods

Real estate appraisal is the fulcrum of fairness and equity for a transactional society which depends on real estate as its primary source of and repository for wealth. The appraisal process is expected to provide an estimate of value to serve as a benchmark for everyday decisions which will affect people individually and collectively, now and for the future, in all aspects of life affecting their well being. But the appraisal process appears to be defaulting on its economic functions and ethical responsibilities because:

1. Appraisal procedure is failing to keep pace with the technology of data management, accounting allocations, and legal definitions on which business decisions depend. The question of what is to be valued is shifting and the definition of value is being obscured by makeshift adaptations to historic methodology.
2. Appraisal personnel lack the professional elan to introduce better methods until required to do so by customers more knowledgeable in the potential for data management and transactional modeling than those who call themselves appraisers. As a result, institutional customers subvert appraisal sophistry to create the appearance of independent objectivity for subjective self-serving decisions.

3. Appraisal societies have concentrated their efforts for the last 40 years on institutionalizing codified technique within corporate systems, courts, and bureaucracies rather than enriching their techniques and trade level educational programs with improved, versatile data management methods. Because this public relations investment in dogmatic methods is depreciated by innovation, professional organizational energies have often been directed to retard innovation by means of petty confrontations with academia, government, and dissident appraisal groups. Internal organizational budgets were not adequate for proper enforcement and anticipation of improved professional standards.

4. Appraisal customers are increasingly dissatisfied with an appraisal product that is bureaucratic, normalized to obsolete standards, defensively conditional, and more concerned with cost of production than quality of product so that clients are often unwilling to pay adequate fees when anticipating inadequate products. Consequently fee schedules and trade manipulation of fees to subvert the appraisal process has put Gresham's Law into operation in terms of appraisal quality.

Thus, this appraisal book is written for those who must provide appraisal services or those who must purchase appraisal services in a way that is cost effective, ethical, and germane to the decisions which need to be made. Over the years, appraisers have proven to be quick to adapt appraisal logic to the needs of those customers ~~appraisal to the problems~~ which

offer the largest markets for appraisal services. Therefore, to those who would introduce innovative methods to expand the tools of appraisal, the relevance of the product, and the craftsmanship of the trade, it seems logical to teach the clients of appraisal what to question, what to require, and how to spend their money wisely on an important and necessary service.

New approaches to the appraisal process are not really new nor are they the product of academia.(1) Appraisers are a cross-section of our society which has been termed a grassroots, bottom upwards society in terms of long-term trends and ideas.(2) New approaches are a cohesive presentation of principles and techniques generated by leading appraisal practitioners, who pioneer with patient, self-instruction, experimentation, and education of their client at a very local level. Hopefully, this book will provide support and precedent for their efforts at introducing better methods to bank boards, judges, assessors, auditors, and fiduciaries who help impede the glacial pace of progress in property valuation.

The real estate market is basically a rational institution, generally operating along predictable alternatives and outcomes so that its analysis could become a science, a behavioral science, to be sure, not a physical one. Although there are no absolute answers in matters of behavioral science, such as those which govern a real estate transaction pricing problem, there is, under any given set of conditions, one response to a given question which has a higher degree of probability and relevance than any other. Relevance requires that one understand the

question for which value is a benchmark, and probability requires that one understands the methods and limitations for objectively analysis of subjectively generated data. Because the

(1)"Is There a 'New School' of Appraisal Thought?", Richard U. Ratcliff, The Appraisal Journal, October 1972.

(2)Megatrends: Ten New Directions Transforming Our Lives, John Naisbitt, Warner Books, Inc., New York, 1982.

appraisal process involves a constant interplay of multiple disciplines, as understood by a generalist, together with changing priorities for the exhaustive detail of the specialist, the editorial process of deciding when to be a generalist and when to be a specialist introduces a significant element of subjectivity. Too often the current appraisal report sidesteps critical specialties with the use of limiting conditions which exclude responsibility for engineering, accounting, politics, environmental science, or socio-economic factors which are critical to any valid conclusion. On the other hand, these elements of discretionary expertise can provide intellectual challenge for teams of creative problem solvers, i.e., the introduction of cooperative professionals with selected specialties into an otherwise poorly defined problem.(3) But that opportunity for creative problem solving without a high ethical sense of independence leads to manipulation of the appraisal process to serve the insensible biases of clients or of other professional goals. The inertia of appraisal societies has led to the real threat that the appraisal function will be coopted by the accountants, the architects, the engineers, and the investment bankers who have a long lead on the appraisers in

the task of incorporating the new technology of information management into their professional services. These professions also have a lead on the appraisal groups in compromising the objectivity of an independent appraisal, since they use the appraisal function as a peripheral profit center to accounting practice or as entre to a primary profit center such as a design and build contract. Appraisal customers further undermine independence when those who need the appraiser

(3) The Complete Problem Solver, John R. Hayes, The Franklin Institute Press, 1981.

as an advocate for his loan, tax position or sale price, choose and pay the appraiser rather than the lender, assessment board, or buyer.

Society needs independent observers to provide benchmarks of real estate values to maintain equity in a complex transactional society. If appraisal is no longer independent, society will invent a new group of independents, such as ~~say~~ real estate analysts. Perhaps the loss of the term appraiser would be a good thing if it also means that the analyst is no longer saddled with the narrow functions of fair market value, the archane methodology of three approaches, and the mindless conditoning of legal precedent and business custom.

~~Perhaps~~ **T**he new approach to real estate appraisal begins with recognition that a real estae analyst can address a variety of reports to a broad array of real estate problems such as:

1. Economic market surveys
2. Location studies

3. Most probable use studies
4. Most probable price valuations
5. Fair market value for tax assessment
6. Investment valuation using discounted cash flows
7. Allocation of going concern value to tangible and intangible assets
8. Salvage value for distressed property
9. Cost/benefit rankings of public real estate alternatives
10. Exit value for a pension portfolio forced to liquidate
11. Consumer psycho-economic profiles for specific projects
12. Physical analysis of land and building to determine reuse potential.

As appraisal fades into the broader opportunities of real estate analysis, it will no longer be necessary for the appraiser to cope with the double role of generalist and specialist alone or in competition with other professions. The scope of skills required presages a clinical group practice which integrates the lawyer, land planner, engineer, and analyst into a single service entity supported by technicians in information processing, behavioral research, and graphics. When creative problem solving requires professional dialogue among peers, the limiting conditions of appraisal sophistry and unethical subjectivity would require an improbable conspiracy. In the valuation process expansion of technique and modified professional practice in response to consumers will have restored professional status and scientific methods to the appraisal trade in an information society.

B. Historical Evolution of Appraisal Process

The appraisal process is synthesized from three distinct areas of general theory - value theory, valuation theory, and appraisal logic. Value theory is concerned with the definition of value such as value in exchange, value in use, fair market value, or most probable selling price to suggest a few. Valuation theory is concerned with economic issues as to the allocation of resources to optimize the net product of society and may begin with a Marshallian synthesis that prices trend toward a compromise among cost, present value of benefits, and short term markets, a Marxian premise that all value stems from labor, or a hedonistic view that value is inherent in the demand of the moment. Appraisal logic is concerned with the problem of operationalizing a definition of value that reflects some specific viewpoint in valuation theory. For example, traditional appraisal began with a valuation approach that was concerned with the economic surplus produced by a real estate asset, a net economic product which might be valued using a cost approach, income approach, or market comparison approach. When the appraisers operationalized this valuation theory, they created a theory of equivalence which determined deductively that when the values of these three valuation concepts converged on equivalency, the result was a definition of value as fair market value. Appraisal methodology sometimes inadvertently combines value definitions, valuation theory, and methodology into inconsistent procedures. For example, the introduction of mortgage-equity appraisal methodology subtly shifted from fair

market value of the net economic surplus of the asset to maximum price as the sum of the values of the liabilities which had a claim on the asset; the more favorable the leverage in the mortgage equity ratio, the higher the claim values on the asset.

The basic elements of both traditional and contemporary appraisal relate to the need to model a complex decision process in order to simplify the critical relationships to be studied, to structure the data, and to provide editing controls on the analyst. All models for decision purposes have three basic inputs and three basic constraints. A decision model begins with a question to be answered, and the essence of the model is a hypothesis that relates available information to the question in some useful way. Theory and data must interact in an applied field such as appraisal, because useful relationships are limited by the availability of data, and masses of data are limited in their application until relationships can be established which focus the data on the question. Where a well defined question, adequate data, and a model theory of relationships do exist to serve an appraisal purpose, the results are nevertheless limited by the skill of the analyst, the credibility of the methods used with the client, and the cost-benefit ratio of applying a model process to the question for which the appraisal is desired.

Historically an appraiser has been required in imperfect markets where information was difficult to collect, products difficult to compare, and customers too infrequently involved in transactions to be knowledgeable. Under those conditions a specialist in data collection, comparison, and every day transactions

provided significant economic advantage to infrequent participants in real estate market. However, the opportunity for subjective interpretation of limited information required some socialized standard of behavior to discourage rationalization, manipulation, or deliberate malfeasance. To that end the traditional appraisal models referred to as the market approach, the income approach, and the cost approach were stylized to facilitate both a minimum standard of performance and enforcement of malpractice accountability. The historical development of value concepts and supporting economic valuation theory have been well developed by others.(4)

(4)Basic background reading for this text should include:

Arthur M. Weimer, "History of Value Theory for the Appraiser," The Appraisal Journal (1960)

Paul F. Wendt, Real Estate Appraisal: Review and Outlook (Athens: University of Georgia Press, 1974)

AIREA, Textbook Revision Committee, The Appraisal of Real Estate, 8th ed. (Chicago: AIREA, 1983)

The traditional methods which evolved reflected Marshallian economics to legitimize fair market value and the economics of certain professional groups to advance self interest. For Marshall the market approach explains value in the short run, discounted cash flows explain value in the immediate term, and the cost to construct an alternative could be expected to place a ceiling on the maximum that anyone would be willing to pay in the long term. These valuation theories paralleled the special interests of the brokers who believed "the value of a thing is the price it will bring" (they controlled the supply of data), of

the professors who were primarily intrigued with net present value of an income stream only they could do the math), and of insurance company lenders who stressed cost approach (they were paranoid about lending more than a fraction of the cost to construct.) Despite caveats by many appraisal writers,(5) these methods were synthesized into the now famous three approaches to value dogma.(6) Coincidentally the synthesis and implication of equivalency coopted the vested interest of the three major customer groups for appraisal services in the 1930's, the insurance companies, the government (influenced by the professors at FHA), and the real estate brokers who had the money to finance an appraisal institute under the umbrella of the National Association of Realtors.

(5)See early works such as those authored by Fredrick M. Babcock, The valuation of Real Estate, (New York: McGraw Hill, 1932), and by Harry Grant Atkinson, Real Estate Appraisal text material, a chapter entitled, "The Three Approaches," Course 1, (Chicago: American Institute of Real Estate Appraisers, 1938)

(6)The rigidity of the dogma that there is an equivalency among the three approaches to value can be attributed to the strong influence of the appraisal technicians such as George Schmutz who wrote The Appraisal Process in 1951 and Arthur A. May who wrote the Valuation of Residential Real Estate in 1953. The theory of equivalency continues to appear in the work of major appraisal companies despite its discreditation.

The traditional approaches assume that the property owner is a prudent man who is maximizing economic surplus for society while pursuing maximum profits from a real estate parcel standing in isolation from other portfolio issues. This stylized prudent, patient, and knowledgeable individual chooses among alternative courses of action in a deductive way from a set of

principles which define the goals of the typical actor in the market place. The model is deductive, normative and dependent on strict adherence to consistency with the logic of the process. Not only does this prudent man move inexorably toward highest and best use of the land in terms of his own maximum profit but, in addition, negotiates for a "fair or warranted value" that is "the highest price in terms of money (is the price that) a property will bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably, and assuming the price is not affected by undue stimulus." It goes on to say:

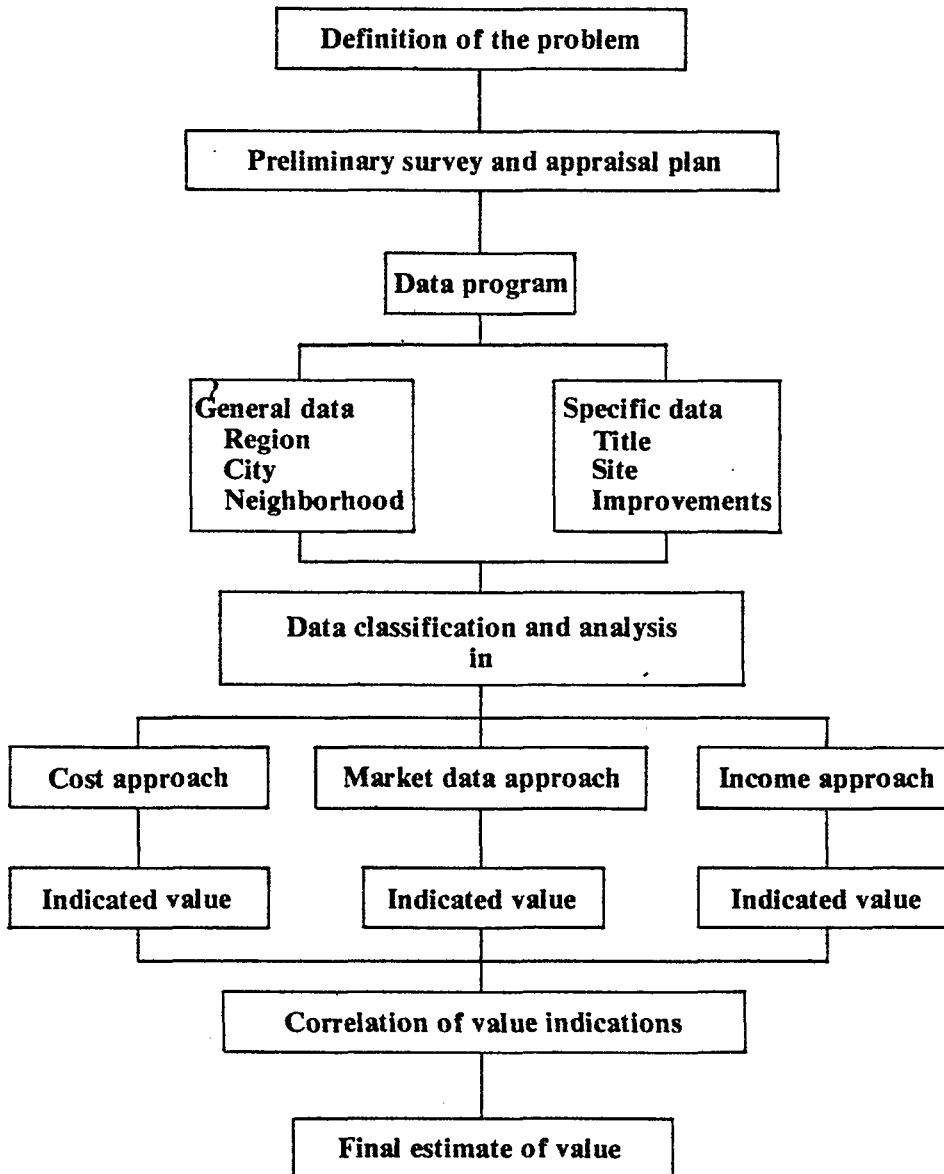
Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated
2. Both parties are well informed or well advised, and each acting in what he considers his own best interest
3. A reasonable time is allowed for exposure in the open market
4. Payment is made in cash or its equivalent
5. Financing, if any, is on terms generally available in the community at the specified date and typical for the property type in its locale
6. The price represents a normal consideration for the property sold unaffected by special financing amounts and/or terms, services, fees, costs, or credits incurred in the transaction (6)

C. The Contemporary Appraisal Process

The outline proposed for a contemporary real estate appraisal report has been influenced strongly by the work of Professor Richard U. Ratcliff, who made his most comprehensive statement in

EXHIBIT 1
THE APPRAISAL PROCESS



From the AIREA textbook, *The Appraisal of Real Estate*

his book, Valuation for Real Estate Decisions. His direct and dry prose style reflects common sense and the explicit elements of many decision model. The analyst must state the question correctly, specify the data priorities, and focus the data on the question by means of some logical framework, specifically the elements of economics, land economics, and real estate enterprise theory. An oversimplified statement of Ratcliff's appraisal axioms provides a base for the detailed report outline proposed in Section Two.(8)

A. An appraisal valuation is a model response to multiple questions, the essence of which are:

1. Vs: subjective value to the owner or user, often as complementary investment or as a resource tool in a larger enterprise.
2. Vc: cost of constructing a substitute alternative.
3. Vr: reproduction cost of replacing a property with a photo-image alternative.

(7)Byrl N. Boyce, ed., Real Estate Appraisal Terminology (Cambridge, Mass.: Ballinger Publishing Company, 1975)

(8)For additional insight on the Ratcliff methodology, see: Richard U. Ratcliff and Dennis G. Swan, "Getting More from Comparables by Rating and Regression," The Appraisal Journal (January 1968); Ratcliff and Bernhard Schwab, "Contemporary Decision Theory and Real Estate Investment," The Appraisal Journal (April 1970); and Ratcliff, "Appraisal: Is It Measurement or Prediction?", The Real Estate Appraiser (November-December 1972)

4. Vo: Offering (listing) price at which the property is offered for sale.
5. Vb: bid price offered by a prospective purchaser.
6. Vt: the transaction prices at which the property actually sold, an historic fact.
7. Vi: insurable value as defined by policy contract or adjustment practice.

8. Vp: most probable price, a prediction of what the property will sell for at a specified future time.(9)

Even though insurance or court cases might require specialized value definitions, Ratcliff argues that the great majority of cases requires that the appraiser predict the transaction price at which the property would probably sell. Most probable price and terms at which a transaction would occur, is defined by Ratcliff:

The most probable price is that selling price which is most likely to emerge from a transaction involving the subject property if it were to be exposed for sale in the current market for a reasonable time at terms of sale which are currently predominant for properties of the subject type.(9)

Unlike fair market value, most probable price is always qualified by terms of sale, and the appraiser may need to recognize externalities to a normally working market of alternatives fitting a rough curve of indifference tradeoffs of price and features. Instead there may be a misinformed buyer or seller, a buyer or seller under duress to purchase or sell that specific property, and topical political or investment attitudes affecting the subject property. There is also the inherent error in any forecast of transactional behavior.

The Ratcliff approach converts the traditional single value conclusion of appraisal to an explicit statement of the central tendency (mode, mean, median) around which the transaction price is likely to fall. In a few cases, the transaction zone might be a statistical statement of standard error, but in most situations it represents an economic statement of how high the buyer might

(8)Ratcliff, Valuation For Real Estate Decisions

(9)Personal correspondence with Ratcliff.

be willing to go in the negotiation process and of how low a price the seller would be willing to accept. While this range provides recognition of the uncertainty in any business forecast, it also recognizes that the analyst is not able to fully forecast human behavior. Therefore, the statement of probable price within a transaction zone is neither a clean statistical measure of random dispersion nor a measure of fairness to one party or the other. It is a pragmatic recognition that forecasting is imperfect, that bargaining talents are unequally distributed among the actors, and that the appraiser must resort to provides the Court unreliable observations. In application it provides the Court some indication of the highest price and the reliability of the forecasting resources at hand; the lender can choose to be conservative, generous, or optimistic about price for the loan-to-value ratio; the investor can better understand the viewpoint of the seller; and the competing investor can choose which set of assumptions he could buy with his money to justify a price. The seller can better measure the relative firmness of an offer and the trade-offs available between cash-in-hand or rejection to await better future offers.

Ratcliff has suggested priorities for appraisal information:

1. The fundamental concepts of value and price which are central to appraisal are at the heart of the social science of economics. Economic goods are valuable because of their utility (productivity) and scarcity. Thus in analyzing the value of a parcel of real estate, the starting point is with its inherent utility--the characteristics and qualities which can make it produc-

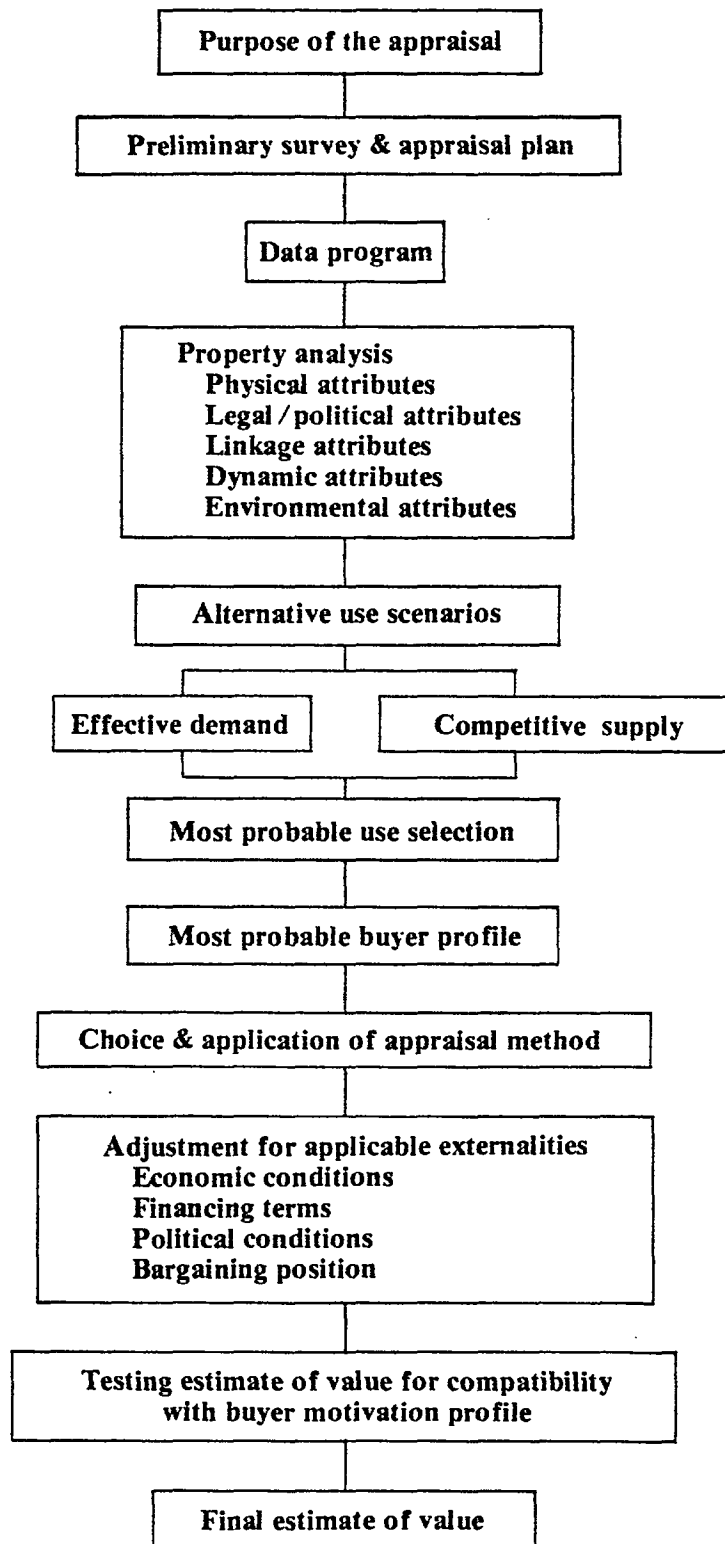
tive and desirable, and for which people are willing to pay. (Thus, an appraisal starts with analysis of the real estate and its alternative uses.)

2. But price is set in the marketplace. To serve his client's needs, the appraiser seeks to predict the price at which the subject property will probably sell. Viewing the property as a package of potentially productive qualities, the appraiser must predict the outcome of the interaction of the market forces of demand and supply to which the property might be exposed and which could trigger a transaction from which market price will emerge. (A land use must be marketed to both political groups and individual consumers. Thus, alternative uses are screened for legal-political constraints and then screened for supply and demand characteristics.)
3. Economics is a behavioral science, descriptive of the economic behavior of people under various conditions. Economic issues may include interest rates, tax laws, and public subsidies, as well as effective demand for and overhanging supply of space for rent or sale. It is the appraiser's task to predict how people, both buyers and sellers, will behave with respect to the subject property when it is exposed for sale. People make values and determine prices. (People's perceptions affect offers and acceptances, and so bargaining position and changing market moods become significant externalities.)(10)

Each step in the Ratcliff logic employs well-established explanatory or predictive techniques from economic analysis and forecasting. The choice of the preferred valuation method follows from Ratcliff's basic appraisal logic expressed to this point in the form of a flowchart (Exhibit 2).

1. The purpose of the appraisal (as benchmark for mortgage loan, listing price, insurance, etc.) leads to specification of a value definition and assignment of subject matter.
2. A definition of value contains explicitly or implicitly certain assumptions about the rules and conditions governing the transaction price to be forecast as well as limitations on eligible methods and data alternatives, all of which govern the appraisal process to be applied.

EXHIBIT 2
RATCLIFF'S APPRAISAL PROCESS



3. Identification of possible alternative uses through detailed analysis of the real estate. While the present use of a property might be its most probable use in a majority of cases, the appraiser must consider alternative scenarios that are suggested by the productivity attributes of the subject property.
4. Ranking of alternative uses regarding their fit within the context of market supply and demand, legal and political restraints, and financial risk and return potentials leads to a conclusion about most probable productive use of the property at the time of the appraisal.

(10) Ratcliff, Valuation For Real Estate Decisions

5. Selection of a most probable use conclusion leads to recognition of alternative buyer types. Basic selection criteria of these types can be matched to specific property attributes to suggest the most probable buyer type or types who can afford to make the most fitting use of the property.
6. Identification of the buyer type provides a general definition of the market area in which to search for comparables or to interview for motivations.
7. Choice of valuation method must interact with availability of relevant data about past activities or current needs of the most probable buyer group. Unlike the traditional appraisal, which presumes a statistical market with potential buyers of nearly equal needs and means, the Ratcliff approach can conclude from the most probable use determination that one specific buyer might be the likely candidate. For example, it might be the existing tenant, or the contiguous property owner who has few options but to purchase, or a specific buyer whose use value is unique enough to justify monopoly pricing.

D. Traditional and Contemporary Appraisal Process Compared

No appraisal system which must collect information about actual transactions is entirely deductive or inductive. However, the traditional approach develops from normative economic theory about the source of value to a deductive appraisal framework of analysis. It presumes that the appraiser knows more about

appraisal methodology than the property to which it should be applied. The contemporary appraiser begins with what can be observed, the property and its environs and the issue for which some appraisal estimate is required. Only after property analysis suggests the most probable use and hence the profile of the most probable buyer does the appraiser begin to select an appraisal methodology with which to implement a valuation and value theory most relevant to the issue. The contemporary moves from what is known about the issue and the property inductively toward a valuation method which will then deductively control the methodology. A flow chart of the traditional process in Exhibit 1 illustrates these distinctions when contrasted to a flow chart of the contemporary process in Exhibit 2. These general flow charts help shape a more detailed outline of a full narrative report under the traditional method in Exhibit 3 and the contemporary outline as generalized in Exhibit 4.

The interaction of the issue for which an appraisal is sought, the definition of value, and the valuation theory to be applied can lead to a large number of alternative combinations. Reference to Exhibit 5 will provide a basic classification of transaction purposes from which Exhibit 6 can draw seven examples to demonstrate the shifting definition of value, valuation theory, property rights to be included in the appraisal, and the economic motivation presumed for the buyer. There is a progressive logic in Exhibit 6, which moves from the issues or questions to a valuation model, property data, and presumptions about buyer/seller motivation which are relevant in a given appraisal report. Negotiations, trials, and the competence of

EXHIBIT III
Suggested Outline
For Traditional Appraisal Report Format

I. Introduction

- A. Title page. Frontispiece, if any, may face or follow the title page (A single photograph of the property or other exhibit may be used as a frontispiece or appear instead in the addenda.)
- B. Letter of transmittal. May include certification of value
 - 1. Date of letter and salutation
 - 2. Street address of the property involved and a brief description, if necessary
 - 3. Statement as to the interest in the property being appraised
 - 4. Statement that inspection of the property and necessary investigation and analysis were made by the appraiser
 - 5. Reference that the letter is accompanied by a complete appraisal report
 - 6. Date as of which the value estimate applies
 - 7. The value estimate
 - 8. The appraiser's signature
- C. Table of Contents
- D. Summary of important conclusions
 - 1. Estimate of land value and highest and best use
 - 2. Total reproduction and/or replacement cost new of improvements (per square foot and/or cubic foot)
 - 3. Age of improvements and their net depreciated value
 - 4. Gross economic rental value and rental as leased
 - 5. Net income expectancy
 - 6. Capitalized value estimate
 - 7. Estimated market price obtainable and unit basis
 - 8. The final estimate of defined value

II. Description, Analyses, and Conclusions

- A. Identification of the property
- B. Objective of the appraisal
- C. Definition of value
- D. Property rights appraised and date valuation applies
- E. City, neighborhood, and location data
 - 1. Distance and direction from employment centers
 - 2. Public transportation
 - 3. Road pattern, layout, and width of streets
 - 4. Proximity to good shopping
 - 5. Proximity to grade and other schools
 - 6. Proximity to parks and recreation
 - 7. Proximity to nuisances
 - 8. Police and fire protection, rubbish collection
 - 9. Life stage of neighborhood
 - 10. Population trend
 - 11. Percentage of homeownership
 - 12. Vocations, wage levels, rent levels
 - 13. Conformity of development
 - 14. Vacancy in living or commercial facilities
 - 15. Restrictions and zoning
 - 16. New construction activity
 - 17. Percentage of vacant land
 - 18. Changing land use
 - 19. Level of taxes
 - 20. Adequacy of utilities and street improvements
 - 21. Adequacy of parking, street and off-street
 - 22. Concentration of advertising by retail merchants

23. Street traffic, type and amount
 24. Pedestrian traffic, type and amount
 25. Proximity to expressways, tollroads, and airports
 26. Rail connections and service for freight
 27. Labor supply, quantity, and type
- F. Zoning and taxes
- G. Site data
1. Description of the site area, shape, contour, soil and subsoil; utilities
 2. Highest and best use
- H. History
1. Description of improvements
 1. Age and size of building
 2. Number and size of units
 3. Structural and construction detail
 4. Mechanical equipment
 5. Physical condition
 6. Discussion of functional utility
- J. Highest and best use analysis
- K. Land value
- L. The cost approach
- M. The market data approach
- N. The income approach
- O. Reconciliation of the value indications
- P. Qualifying and limiting conditions, including general underlying assumptions. This may be followed by a certificate of value, signature, and seal.
- Q. Certification of value if not combined with letter of transmittal
1. Personally inspected the property
 2. Considered all available factors affecting value in forming an opinion of value

3. Has no present or contemplated interest in the property
 4. Conducted the appraisal in conformity with the ethics of the appraisal profession, with reference to membership (if any) in the American Institute of Real Estate Appraisers
 5. Did not base the fee on the value reported
 6. Attests that the data included in the report is correct to the best of the appraiser's knowledge
- R. Qualifications of the appraiser
1. Professional experience
 2. Educational background and training
 3. Business, professional, and academic affiliations and activities
 4. Clients for whom the appraiser has rendered professional services, the types of properties appraised, and the nature of the appraisal assignments

III. Addenda

- A. Maps, plats, photographs
- B. Detailed statistical data
- C. Detailed property data, if too lengthy to be included in Part II.
- D. Detailed market data, if too lengthy to be included in Part II
- E. Leases or lease summaries

EXHIBIT IV
SUGGESTED OUTLINE
For Contemporary Appraisal Report

- I. Letter of Transmittal
 - A. Brief statement of appraisal issue
 - B. Definition of value applied
 - C. Value conclusion (qualified by financing, terms of sale, and range of probable transaction zone as appropriate)
 - D. Sensitivity of conclusion to critical assumptions
 - E. Property observations or recommendations
 - F. Incorporation by reference of limiting assumptions and conditions
- II. Table of Contents
- III. List of Exhibits
- IV. Digest of Facts, Assumptions, and Conclusions
 - A. Property type
 - B. Property location
 - C. Property ownership
 - D. Determinant physical attributes
 - E. Controlling legal/political attributes
 - G. Pivotal linkage attributes
 - H. Marketable dynamic attributes
 - I. Most probable use conclusion
 - J. Most probable buyer profile assumed
 - K. Initial probable price prediction and central tendency
 - L. Adjustment of preliminary value estimate for external factors or market position of parties
 - M. Testing of corrected probable price for consistency with most probable buyer objectives
 - N. Final value conclusion and range of error estimate as appropriate

V. Appraisal Problem Assignment

- A. Statement of issue of circumstances for which appraisal is intended to serve as a decision benchmark and date of valuation
- B. Special problems implicit in property type or issue that affect appraisal methodology and definition of value
- C. Special assumptions or instructions that are provided by others
- D. Definition of value, which is the objective of appraisal analysis and which disciplines appraisal process
 - 1. Selected definition and source
 - 2. Implicit conditions of the definition
 - 3. Assumptions required by relevant legal rulings
- E. Definition of legal interests to be appraised
 - 1. Legal description and source
 - 2. Permits, political approvals, and other public use entitlements
 - 3. Fixtures or personalty to be included with sale
 - 4. Specific assets or liabilities excluded as inconsistent with issue or premise of appraisal

VI. Property Analysis to Determine Alternative Uses

- A. Site analysis
 - 1. Physical (static) site attributes (size, shape, geology, slope, soil hydrology, etc.)
 - 2. Special site improvements (wells, bulkheads, irrigation systems, parking surfaces with unique salvage or re-use characteristics, etc.)
 - 3. Legal/political attributes (applicable federal, state and local zoning, covenants, easements, special assessments, or other land use codes and ordinances, etc.)
 - 4. Linkages of site (key relationships to networks, populations, or activity centers that might generate need for subject property)
 - 5. Dynamic attributes of site (perceptual responses of people to site in terms of anxiety, visibility, prestige, aesthetics, etc.)
 - 6. Environmental attributes of site as related to off-site systems or impact areas.

B. Improvement Analysis

1. Physical (static) attributes of improvements, cataloged by type, construction, layout, condition, structural flaws, etc.
2. Mechanical attributes (brief statement of heating, ventilating, air conditioning, electrical, plumbing, and fire or safety systems in terms of limitations on use or efficiency)
3. Special structural linkages to off-site elements (tunnels, bridges, adjoining structures, etc.)
4. Legal/political constraints on use of existing improvements (federal, state, and local building codes, fire codes, conditional use procedures, neighborhood associations, and inspection liens of record for violations)
5. Dynamic attributes of existing improvements (impressions created by type, bulk, texture, previous uses, past history, or functional efficiency)
6. Current uses and tenancies of improvements, if any
7. Environmental impact attributes of improvements on environs

C. Identification of alternative use scenarios for subject property

1. Marketing existing uses of property as is
2. Renovation of existing property and marketing improved space
3. Redirection of existing property to alternative tenancies and uses
4. Replacement of existing improvements or program with new uses

VII. Selection of Most Probable Use

A. Comparative analysis of alternative uses

1. Testing and ranking alternative-use strategies for legal/political compatibility
2. Testing alternative-use scenarios for fit to physical property attributes within reasonable cost-to-cure
3. Selection of scenarios that justify market research

B. Analysis of effective demand for selected uses

1. Search for rents and income potentials of scenario space-time products
2. Screen and rank market targets
3. Apply income-justified residual investment approach to rank economic power of alternative market scenarios

4. Evaluate marginal revenue, marginal investment risk trade-offs
- C. Summary matrix for selection of most probable use scenario
 1. Physical fit
 2. Legal/political risk
 3. Strength of market demand
 4. Adequacy of available financing
 5. Revenue and cost assumptions risk

VIII. Prediction of Price for Subject Property

- A. Specification of most probable buyer type implied by most probable use
 1. Criteria motivations of alternative buyer types
 2. Selection of most probable buyer type as basis for prediction of a sales transaction with logic for ranking of alternatives
 3. Specification of essential site, improvement, financial, or key decision criteria of principal alternative buyer types
- B. Explanation of appraisal methodology for prediction of probable purchase price
 1. Preferred method: to infer buyer behavior from actual market transactions and market data available from sales by comparable buyers of acceptable alternative properties
 2. In the absence of adequate market sales data, the alternative method selected for simulation of probably buyer decision process
 3. If market influence of simulation is impossible, select normative model such as investment value or cost to replace
- C. Search for comparable market sales transactions
 1. Unit of comparison
 2. Method of comparison
 3. Explanation of search parameters
 4. Investigation of sale transaction circumstances
 5. Evaluation of comparability
 6. Definition of predominant terms of sale
 7. Source of comparative adjustments
- D. Determination of suitability of existing market data for inference of value for subject property

1. Where data is adequate, selection of market comparison method to estimate value
 2. Where data is lacking or misleading, selection of alternative valuation method and reasoning
 3. Conclusion leads to E or F
- E. Simulation of probable buyer decision process if market comparison approach is inconclusive or impossible
1. Source and explanation of simulation assumptions
 2. Schematic drawings of site or building development plans to be simulated, if appropriate
 3. Accounting schedules of simulation assumptions
 4. Range of alternative simulation value predictions (sensitivity analysis)

(OR) F. Selection of normative model of buyer behavior

1. Investment model
 2. Cost-to-replace model
 3. Nonquantitative decision models
- G. Computation of most probable price and standard error of prediction
- H. Correction of preliminary value estimate for external factors
1. Identification of conditions relative to date of appraisal not present in market comparison assumptions
 2. Specification of political contingencies that might upset normal appraisal assumptions of substitution
 3. Identification of any violation of conditions in the definition of value by the appraisal methodology
 4. Indication of adjustment necessary for externalities to preliminary probable price estimate or
 5. Explicit statement that no adjustment is necessary
- I. Test of most probable price or value conclusion by means of:
1. Comparison to values derived from selected alternative appraisal methodology
 2. Demonstration of achievement of objectives of most probable buyer minimum selection criteria
 3. Measurement of fit of financial cash requirements to market rents, lender ratios, or other relevant constraints

4. Comparison to decision criteria appropriate to issue (financial ratios required by mortgage lender, comparative assessments of similar property for the tax appeal board, rates of return in alternative investments, construction prices for similar property, or whatever demonstrates consistency with statement of the issue)

IX. Appraisal Conclusion and Limiting Conditions

- A. Definition of value and value conclusion of the report
- B. Certification of independent appraisal judgment
- c. Statement of limiting conditions that establish:
 1. Contributions of other professionals on which report relies
 2. Facts and forecasting under conditions of uncertainty
 3. Critical assumptions provided by the appraiser
 4. Assumptions provided by the client
 5. Controls on use of appraisal imposed by the appraiser

X. Appendices

Maps and data sets, only if they are referred to in the text. These data collections are secondary to the argument in the body of the report and would slow down the reader if they were included as exhibits.

the appraiser revolve on the consistency displayed in appraisal definitions, assumptions and applications. Those who presume that differences in terminology such as fair market value versus most probable price, or highest and best use versus most probable use, are differences in semantics only fail to recognize the importance of logic, experimental controls on empirical evidence, and behavioral premises which dominate the effectiveness of each appraisal research effort. The appraiser, the client, or the lawyer who must attack or defend the appraisal work product should be able to write down the five model components appropriate to the issue at hand to understand the appraisal.

For example, fair market value implies exposure to the marketplace, a knowledgeable buyer, and freedom of choice and duress. A bank trust officer who does not advertise the availability of a given property over an appropriate time in a reasonable trade area will fail to obtain fair market value by definition. A comparable sale will be disqualified if it can be shown the buyer was ignorant of the limitations on use, just as that sale may be disqualified because the buyer did not have a range of suitable alternatives among which he was almost indifferent. While fair market value presumes economic behavior which is knowledgeable, free of duress, and flexible in choice, the term most probable price as used by the contemporary appraiser will permit the analyst to recognize the externalities of bargaining position and expertise as factors affecting the price to be realized in the transaction.

Perhaps the most difficult problem in real estate appraisal today is one which many take for granted, specifically the definition of real estate in a particular situation. The tax assessor may inadvertently include the furnishings of a hotel in the real estate value because the going concern value of the hotel enterprise is so easily confused with the high silhouette of the hotel building and site. When are benefits which spring from income tax laws, profit centers in captive service companies, or portfolio effects, and arbitrage opportunities which are site specific attributable to land or attributable to management and capital? Ricardo never anticipated that the residual land value might include a tobacco allotment, a PIK program limitation, or complex operating agreements which attach to the land to share control of profit centers stemming from labor, capital and management.

Reference to the earlier structure of a contemporary appraisal report (Exhibit 2) is a reminder that the appraiser should begin with the best available facts, specifically the property to be appraised and its observable environment and location characteristics. The rights to benefit from that set of attributes must then be defined in order to identify the subject matter of the appraisal, the potential alternative uses, the most probable use, and a profile of the most probable buyer characteristics and motivations. Chapter 2 will provide the framework for describing the property to be appraised and the most probable use to be presumed to set the stage for appraisal.

CLASSIFICATION OF REAL ESTATE TRANSACTIONS

1. Taxation
 - a. Assessment for property tax
 - b. Basis for depreciation allowance
 - c. Basis for inheritance tax
 2. Extension of credit secured by real estate
 - a. Institutional lender for profit
 - b. Governmental lender for peripheral public purposes
 - c. Seller to facilitate transaction
 3. Transfer of ownership
 - a. Sale
 - b. Purchase
 - c. Trade
 4. Compensation for damage or loss
 - a. Through condemnation
 - b. For damage compensable under property
 - c. Insurance contract
 5. Selection of a program of utilization
 - a. Maximization of value through renovation
 - b. Life cycle costing of public facility
 - c. Impact on value of private covenants controlling design, operation or use
-

EXHIBIT 6
Typical Real Estate Decisions Requiring Valuation by Appraisers

(1) Property Transaction Issue	(2) Required Definition of Value	(3) Valuation Theory	(4) Property Rights to be Included	(5) Economic Motivation
1. Assessment for property tax	Fair market value with cash to seller	Productivity of asset	Unity of real estate interests only	Uniformity of appraisal treatment for all properties
2. Extension of credit by government lender	Fair market value under special conditions	Productivity of asset plus public benefit	Real estate interests plus contract rights to subsidy	Financing of project within available cash income
3. Transfer of ownership-sale	Most probable price and transaction range	Marginal value to most probable buyer	Interests in tangible real estate, personality, intangible property, and contingent future interests	Ranking of offers relative to anticipations
4. Compensation under property insurance	Insurable value	Principle of indemnity	Asset values insured less indestructible components, less discount for buying position	Maintenance of cash cycle plan of insured against involuntary interruption
5. Selection of program through life cycle costing	Present value of outlays	Minimize present value of cash costs of presumed benefits	Obligation to pay development and operating costs less salvage value	To achieve stated public benefits for minimum value of public resources
6. Purchase of real estate investment	Investment market value	Present value of all cash to purchaser plus present value of change in networth	Going concern value plus income tax benefits plus contingent future interests	Improve spendable cash plus liquidating value of net worth
7. Compensation for eminent domain taking	Fair market value with cash to seller	Value in private sector without knowledge of condemnor usage	Difference in real estate rights and value of property before and after taking	Avoid sharing public use benefit with individual property owner

*Gene Dilmore's
ideas*

CHAPTER 1 - THE THREE APPROACHES TO VALUE

- I. Introduction
- II. The first approach to value: order
- III. The second approach to value: chance
- IV. The third approach to value: beauty
- V. Summary

CHAPTER 1 - THE THREE APPROACHES TO VALUE

I. INTRODUCTION

Before we start thinking about some new ways of appraising, let's think about thinking. Since the two authors are known to be ultra-conservative traditionalists approaching the status of reactionaries, our dominant inclination is to Get Back To Basics. So we will review, first off, "The Three Approaches to Value," which, as we all know, of course, are: (1) Order, (2) Chance, and (3) Beauty.

II. The first approach to value: order

In the approach to value through order, we look at the chaotic mass of data generated by various types of real estate transactions. Somewhere inside all the data there is information, a different thing altogether (all information is data, but all data aren't information). So we cast a cold eye: We want to know the value of the subject property only, so negative techniques are appropriate. We try to eliminate irrelevancies; we try to disambiguate our data. In this stage, we use Michelangelo's basic technique. You'll recall that when he was asked how he carved one of his masterpieces, he answered that he just started chipping away the unnecessary stone from around it--and there it was.

As we chip away the unnecessary data, the "noise" in which the needed information is imbedded, we attempt too, to find or impose patterns on what remains: Does it gestalt? If it doesn't, we keep nudging here and there, because we know that the information has a shape, and all we have to do is to find it. If this were not so, then either despair or a change of occupation would be the appropriate response.

Underpinning this approach to value is a basic assumption: Under all is a universe in which the parts fit. From this assumption, all sorts of implications flow. At the most micro end of the scale, it implies that Heisenberg was fundamentally wrong; his uncertainty principle applies only to an arbitrarily closed system, where all the data aren't available. Remove that artificial closure and look at the total system and all the data, and no dice are rolled. At the most macro end of the scale, it implies that Stephen Hawking is wrong, too: When he finds a way to indirectly study a black hole, he isn't going to find any naked singularity, where the laws of nature are invalid, and cause and effect don't apply.

And in the mundane middle of the scale, it implies that the real estate market is basically an approximately rational institution, and is amenable to rational, scientific analysis. It implies that although we obviously need to know how the market thinks, it is a non sequitur to conclude that we must simply replicate an individual participant's rationale, and refrain from applying sophisticated analytical techniques to data which may have been generated in a naive manner. For example, how many voters, before pulling the lever, apply discriminant analysis to their various sets of opinions, in order to decide which lever to pull? Yet a political analyst couldn't operate without such tools to analyze why that lever was pulled.

It also implies that we may feel free to stop parroting the inane platitude that "appraising is not a science; it's an art." Appraising is a behavioral science--which has nothing to do with Skinnerian behavioral psychology--which just happens to be at a somewhat primitive state of development. There is nothing in that fact justifying the profession's apologetic diffidence. Walk tall: We may not have a fully developed analytical framework, but we are still better off than, say, those who profess the science of exobiology--at least we have some data.

In the 1960's a photographer made an interesting experiment. He tried various combinations of filters on his camera, with the startling result that he produced photographs that were easily identifiable as being in the style of Renoir, Rembrandt, Degas, and several other painters. The experiment was not followed up, and created little excitement, but it was instructive: The way an artist "sees" a particular scene is governed by what he chooses, consciously or unconsciously, to leave out. Remember the tests for color blindness? A lot of random dots of various colors are scattered here and there, but suddenly you see the red dots only, and they form a letter or a number. That's the first approach to value: We look for the red dots.

III. The second approach to value: chance

In the approach to value through chance, we acknowledge the possibility of occurrence of various combinations of the numbers resulting from our numerous assumptions in the valuation process. We may specify probabilities for them, or use Monte Carlo techniques to effect a simulation of this real-world likelihood.

And when we "get an answer," we don't present it as "the" one hundred percent precise value; we reflect the elements of error and randomness and variability by assignment of specific confidence levels wherever possible, or at the least, by presentation of ranges and of possible varying values under alternative conditions and assumptions.

Imprecision is built into the data and techniques utilized in the valuation process, and we diminish our credibility when we imply that our valuations reflect a higher degree of precision than is possible with the given data. For example, an analysis by one of the authors of first and third bids on 640 building contracts ("Replacement Cost New: The Precision Problem," Appraisal Review Journal, Winter 1981) indicated quite clearly that, at a 90% confidence level, any cost approach to value has a minimum built-in statistical random error of a minimum of 16% in the replacement cost new figure alone, and 19% at a 95% confidence level. No cost approach indication, therefore, even assuming everything else is totally correct--depreciation, land value, and so on--is going to be more precise than that. The same principle applies to other valuation techniques.

No respectable scientist is afraid of the word "error," and appraisers should adopt the same stance. Uncertainty is a sure thing. And we are remiss when we do not explicitly take it into account.

IV. The third approach to value: beauty

In the third approach to value, we consider beauty. Although there is sometimes a little hyprocisy about this, one scientific hypothesis is usually selected in preference to other possible hypotheses primarily on the basis of aesthetic considerations: Elegance is the ultimate choice criterion.

Even Einstein didn't decide on the speed of light as a limiting absolute by arriving there after a long sequence of mathematical calculations. It simply gave the most elegant structure to a mental picture of the world. The double helix wasn't the end product of a lot of computations--those came later; it was the simplest--and therefore the prettiest--shape that was consistent with the terms of the problem.

So in the behavioral science of valuation, we consider too, the cleanness of the lines, the elegance, of our possible solutions, and select accordingly: The most aesthetically satisfying solution is also the most probable solution. This means that along with the sophisticated analytical techniques available to us by virtue of technological advances, we don't feel it necessary to discard intuitive reactions, qualitative judgments, or "gut feelings." A substantial part of what this book is all about will be the explication of practical ways to integrate these qualitative judgments with rational quantitative analysis.

For we remember that Socrates, the most mercilessly logical analytical mind of all, didn't hesitate to say "I listen to the voices." It can only enhance our professional stature for us to acknowledge intuition and qualitative judgment as part of our reasoning process, and assimilate them into the valuation process, even, as we will see, formalize them and--our time's ultimate gesture of acceptance of a procedure--computerize them.

V. Summary

In this chapter we have reviewed the appraiser's basic framework for thinking, the rightly revered three approaches to value, and assured ourselves that there is a scientific and rational way to implement them, and to find and express a most probable price for a given property. In Chapter 2 we will learn, working within that framework, how to systematize an overall methodology for performing and reporting a contemporary real estate appraisal.

Exhibit 4 - Fuzzy Set Approach

In this Exhibit, we see portions of the input and output from an approach to the same market comparison, using fuzzy set theory. In using fuzzy sets, as opposed to the crisp sets assumed in probability theory, we take into account the situation, unaccounted for by classical probability, that some objects, and some values, are not clearly within one set or another, but can be partially within a given set or category: X is a member of Y to a specified degree, expressed as a value between 0 and 1. At first blush, this sounds similar to probability, but it isn't. A probability assignment says that in so many trials, X will be a member of Y so many times; but on each "flip of the coin," it either is or is not a member of this set. On the other hand, possibility theory, the mathematical discipline associated with fuzzy sets, says that X may have membership in the set of Y, to a certain degree.

For those who feel, as I do, that a valid comprehensive valuation methodology should include the capacity to utilize fruitfully, not only strictly objective techniques, but subjective, even vague judgments with unspecified parameters, the process has intriguing potential.

Exhibit 4 uses a fuzzy decision program to analyze the property ratings for our office building. The original objective of the program is to make a choice between several alternatives, but since as a by-product, it calculates comparative ratings for each alternative, I have adapted it to our purpose by considering the subject as if it were one of the comparables.

The program first asks for the number of alternatives--in our case, 12. Then it asks for the number of criteria, which are the three categories, of Effective Age, Space Quality, and Marketability Factors. Then we are asked to enter a rating for Effective Age, for each of the 12 properties (including subject). This is a straightforward percentage rating, between zero and one. Some people might feel a little more comfortable with this than with the idea of assigning a number of points to each. Then it asks for ratings for Space Quality for each property, then for ratings for Marketability Factors. The percentage ratings I have entered are the points assigned in the original market comparison approach, as a percentage of 26.

Next we are asked to compare each possible combination of pairs of criteria, on a qualitative basis. This section is where the Fuzzy Set concept shines; we simply decide which criterion of each pair is more important, then, in words, how much more important it is than the other. If there were many criteria rather than just three as here, this section could get somewhat lengthy, but could also be invaluable to someone who didn't want to commit himself to precise weights, but "had a feeling" about the relative rankings of each criterion when it is presented strictly as one of a pair.

All of these judgments are combined to produce relative scale values. Fuzzy set theory indicates that the relative emphasis of modifiers such as "better" and "much better" should result in weights which are used as powers of the original judgments, so that the ultimate values assigned to the items under consideration are not necessarily linearly related. As you can see by comparing the "Decision Values" output with the "Price Per Point Per Square Foot" in the original market comparison approach, this concept has some consequences in the final results.

In deriving a value indication for subject, the program divides the price per square foot by the final rating ("Decision Value"), to get a price per rating point for each property, and applies this mean value to subject's rating, for a prediction of probable price of \$825,500, with a standard deviation of \$182,000. More experience with applying the relative rankings could reduce this standard deviation.

This is a tentative adaptation to a use not contemplated in the original concept of fuzzy decision making, or of the original program used, so a little further tinkering with the program, and experience in its use, can obviously improve the procedure and make it more efficient for the specific function of a valuation technique.

Exhibit 5 - Graaskamp's Backdoor Approach

We begin testing the probable price prediction, with application of Jim Graaskamp's backdoor approach to justified investment. This is a variant of the "income approach," in that we establish the amount of income available for debt service, resulting in an estimated mortgage amount; then we back into the amount of the equity, giving an estimate of the justified investment in the property, at 1,083,000.

EXHIBIT 4

MARKET COMPARISON - FUZZY SET VERSION

FUZZY DECISION MAKING OUTPUT: 3928 MONTCLAIR

NO. OF ALTERNATIVES: 12

NO. OF CRITERIA FOR THE DECISION: 3

RATINGS OF THE ALTERNATIVES

EFFECTIVE AGE	RATING FOR 1	.50
EFFECTIVE AGE	RATING FOR 2	.50
EFFECTIVE AGE	RATING FOR 3	.38
EFFECTIVE AGE	RATING FOR 4	.46
EFFECTIVE AGE	RATING FOR 5	.38
EFFECTIVE AGE	RATING FOR 6	.54
EFFECTIVE AGE	RATING FOR 7	.77
EFFECTIVE AGE	RATING FOR 8	.58
EFFECTIVE AGE	RATING FOR 9	.50
EFFECTIVE AGE	RATING FOR 10	.50
EFFECTIVE AGE	RATING FOR 11	.58
EFFECTIVE AGE	RATING FOR 12	.58
SPACE QUALITY	RATING FOR 1	.50
SPACE QUALITY	RATING FOR 2	.50
SPACE QUALITY	RATING FOR 3	.58
SPACE QUALITY	RATING FOR 4	.58
SPACE QUALITY	RATING FOR 5	.77
SPACE QUALITY	RATING FOR 6	.58
SPACE QUALITY	RATING FOR 7	.88
SPACE QUALITY	RATING FOR 8	.50
SPACE QUALITY	RATING FOR 9	.77
SPACE QUALITY	RATING FOR 10	.58
SPACE QUALITY	RATING FOR 11	.54
SPACE QUALITY	RATING FOR 12	.58
MARKETABILITY	RATING FOR 1	.58
MARKETABILITY	RATING FOR 2	.58
MARKETABILITY	RATING FOR 3	.77
MARKETABILITY	RATING FOR 4	.69
MARKETABILITY	RATING FOR 5	.58
MARKETABILITY	RATING FOR 6	.50
MARKETABILITY	RATING FOR 7	.88
MARKETABILITY	RATING FOR 8	.58
MARKETABILITY	RATING FOR 9	.77
MARKETABILITY	RATING FOR 10	.50
MARKETABILITY	RATING FOR 11	.50
MARKETABILITY	RATING FOR 12	.77

EXHIBIT 4
(Continued)

RATINGS OF THE CRITERIA

FOR EACH PAIR OF THE CRITERIA ENTER 1 OR 2 TO INDICATE WHICH IS MORE IMPORTANT, FOLLOWED BY A COMMA, FOLLOWED BY A NUMBER BETWEEN 1 AND 9 TO INDICATE HOW MUCH MORE IMPORTANT. DEFINITIONS FOR SOME OF THE VALUES ARE:

- 1 - EQUAL IMPORTANCE
- 3 - WEAK IMPORTANCE OF ONE OVER THE OTHER
- 5 - STRONG IMPORTANCE OF ONE OVER THE OTHER
- 7 - DEMONSTRATED IMPORTANCE OF ONE OVER THE OTHER
- 9 - ABSOLUTE IMPORTANCE OF ONE OVER THE OTHER

USE 2, 4, 6 & 8 WHEN THE DEGREE OF IMPORTANCE FALLS BETWEEN THE VALUES DEFINED ABOVE.

(1) EFFECTIVE AGE	--	(2) SPACE QUALITY 2	9
(1) EFFECTIVE AGE	--	(2) MARKETABILITY 2	4
(1) SPACE QUALITY	--	(2) MARKETABILITY 1	5

FDm PROGRAM OUTPUT

CONSISTENCY OF THE PAIRED MATRIX= .129615

DECISION VALUES ...

1	- .213425
2	- .213425
3	- .297078
4	- .297078
5	- .558572
6	- .297078
7	- .752136
8	- .213425
9	- .558572
10	- .297078
11	- .25335
12	- .297078

EXHIBIT 4
(Continued)

PRICE SQ FT PER RATING:

158.65
117.793
109.634
121.449
64.5754
108.961
80.1052
138.222
58.6854
100.007
112.453

MEAN = 106.412

STD DEV = 29.8512

INDICATION FOR SUBJECT:

IMPROVEMENTS	\$656,914
PLUS LAND	\$168,500

\$825,414

A start!

~~IV.~~ SITE ANALYSIS AND IDENTIFICATION OF ALTERNATIVE USES

A. Introduction

A site is a combination of physical attributes and relationships required by the establishment to be housed in that particular space. Any given establishment has a basic mix of physical elements which it must have and elements which it would prefer to have as suggested by the systematic approach to a home purchase decision in Exhibit I. These attributes and relationships can be organized and researched in the same systematic outline whether the point of departure is a site in search of an establishment to use it or an establishment or use in search of a site. Various land buying specialists have created checklists which reflect their primary interest in industrial, retail, or office projects, but all of these are specialized models of the more generalized checklist format which follows. This format is organized in terms of seven major categories of facts and relationships which combine to form the situs model in any particular instance:

1. Physical site attributes (static) include site dimensions, soils, geology, topography, site improvements and capacity, and on-site flora and fauna. (See Exhibit IV-2).
2. Legal/political site attributes include not only zoning and subdividing codes at the local level but also relevant federal, state, or private controls which might direct or restrict site use. As appropriate, the appraiser should note administrative bias patterns relevant to application of law to use of subject site. (See Exhibit IV-4).
3. Physical structural improvement attributes must integrate physical description with building code requirements, energy budgets, and characteristics of structural sub-systems including foundations, bearing structure, exterior wall system, interior wall system, horizontal and vertical circulation system, HVAC systems and security systems. (See Exhibit IV-3).
4. Dynamic attributes are those attributes which exist in the mind of others in terms of status, anxiety, beauty, imagery, sentimentality or other perceptions which attach to the subject property to the degree that these are economically significant. (See Exhibit IV-5).

*
Chap 2
Delmore

5. Linkage attributes identify relationships of site to networks, populations or activities centers that might generate potential demand for the subject property. (See Exhibit IV-6).
6. Economic attributes of site and structure combined relate to alternative rentable spaces, operating expenses, real estate taxes, special assessments, and potential capital outlays required to achieve code conformity, occupancy permits, or marketability. (See Exhibit IV-7).
7. Environmental attributes of the site concern off-site natural systems of which the subject property may be a part such as riparian rights, pollution down wind, storm water runoff, etc. Even the shadow cast by the structure off-site may become significant in the era of solar energy. Impacts on others may be perceptual (i.e., dynamic) or fiscal (legal/political) as well. (See Exhibit IV-8.)

Inventory of situs attributes for a specific property should be a basic skill of the appraiser and the illustrative but by no means exhaustive check-lists provided are adequate treatment of physical attributes in this discussion. The real estate analyst is typically a generalist and will need to validate matters of geology, soils, legal interpretations and the like with specialists at an appropriate point in the analysis. A variety of references on physical and legal matters are provided in the Bibliography. However, some discussion of special relationships between the categories and the process of generating potential alternative uses will introduce the need for identification of the respective market demand and economic power of each alternative. Reference to Exhibit 3- has suggested that the physical, legal/political and environmental attributes are the first steps in the sequence to identify alternatives. These alternatives can then be screened out where political acceptability seems marginal or subject to prolonged delay. The ultimate objective is a decision matrix of some sort which identifies the appropriate selection of most probable use (see Exhibit 4) given the market, consumer and future user research discussed in the chapters which follow and given the basic financial parameters required as MUSTS by the investor (see Chapter).

B. Interaction of Legal and Physical Attributes

Fitting alternative uses to the physical attributes of a particular site at a preliminary level of analysis requires an interactive understanding by the analyst of engineering, law, and building economics so that:

1. Negative site attributes can be neutralized with minimum cost
2. Weak attributes can be strengthened into positive amenities
3. Positive attributes exaggerated for consumer appreciation and maximum price and pace

For example, a rock outcropping might be incorporated into a subdivision entrance and dedicated away with the street right-of-way rather than remove it at great expense. A small sinkhole, (a weak opportunity) might be dredged to create a pond or a storm water swale may be utilized for a trail system. Positive attributes such as views should become the focus of sight lines while negative neighboring features should be screened out with blank walls, landscaping and other devices. A site with prominence at the foot of a one-way street or curve of an Interstate may merchandise its prominence for a premium to those seeking a home-office building site or recognition for visitors seeking a hotel, etc. A site with sewer connectors may be monopoly pricing and pace of development if a sewer moratorium is constraining competitive sites.

CHAPTER III

ABSTRACTION OF APPRAISAL THEORY IN THE THREE APPROACHES AND RECONCILIATION MODEL (3A) AND THE RATCLIFF-GRAASKAMP APPRAISAL MODEL (RGA)

- I. Introduction
- II. Logic Format of the 3A and RGA Models
 - A. The Logic Process
 - B. Value Definition vs. Problem Situation
 - 1. Comparison of the Models
 - 2. The Importance of Productivity Analysis to the Value Estimate
 - C. Purpose and Function of Appraisal Within the Logic Process
- III. Analytical Emphasis of the 3A and RGA Models--Value Theory, Valuation Theory, and Appraisal Theory
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 - 2. Extrinsic Value
 - 3. Value-in-Exchange
 - 4. Fair Market Value vs. Most Probable Selling Price
 - a. The Varying Concepts of V_e , V_t , and V_p
 - b. Concepts of Market Value and Most Probable Selling Price as Used in Appraisal Theory
 - 1) Perception of the Market
 - 2) Abstraction of V_e and V_p

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2. Valuation Theory in Appraisal: The Valuation Methods
 - a. Valuation Theory in the 3A Model:
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3. Valuation Theory in the RGA Model
 - a. Contemporary Methods
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to Simulate Market Behavior
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1. Evolution of the Appraisal Models--Theory of Equivalence
 - a. The Rigid Form and Correlation of the 3A Model
 - b. Summary of Equivalence in the Models
2. Viewpoints of the Models and Motivations of the Market Participants
 - a. Highest and Best Use Analysis
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 - 1) Most Fitting Use
 - 2) Most Probable Use

3. Value Objectives of the 3A and RGA Models
 - a. The Timing of the Value needs
 - b. Measurement vs. Prediction
 - c. Time Dimensions of the Three Approaches
 4. Influence of Financing in the Market Perceptions
of the 3A and RGA Models
 5. The Manner of Value Statements in the 3A and RGA Models
- IV. Summary of the Abstraction of 3A and RGA Appraisal Theory

CHAPTER III
ABSTRACTION OF APPRAISAL THEORY IN THE THREE APPROACHES
AND RECONCILIATION MODEL (3A) AND THE
RATCLIFF-GRAASKAMP APPRAISAL MODEL (RGA)

This chapter is concerned with the development of the general debate of appraisal theory as viewed within the context of the ROW disposition problem. The previous section delineated the problem situation as it evolved from the interaction of institutional factors. With an understanding of the railway problem, it is observed that much of the difficulty in the decision process needed to deal with railway disposition is tied to the appraisal methodology employed.

Appraisal theory as defined in this thesis is the logic format of selecting methodology that links valuation theory to value theory as it relates to the analysis of a specific land use parcel. It is difficult to absolutely separate value theory, valuation theory, and appraisal method since one of the concepts is often discussed in terms of the others, especially as they all relate to the applicable methodology. However, to better understand the theoretical variances of the 3A and RGA models, it is necessary to understand how value theory and valuation theory are emphasized in the two appraisal processes. In order to understand the manner in which the 3A and RGA models use the various concepts of value and valuation techniques it is first required that the logic format of the models be identified.

The Logic Format of the 3A and RGA Models

The logic format of all appraisal models are an adaptation of scientific method. As will be pointed out in discussion of value and valuation theories, the logic formats influence the varying emphases that the two models place on the data, hence influencing their value estimates. The varying logic formats of the 3A and RGA contribute to the argument that more than only a semantic difference exists between the two models.

The Logic Process

In a general format the traditional 3A model is deductive. The RGA model is inductive.¹ The logic formats are relevant to the way in which the problem situation is perceived or even initially defined. In a deductive format the analysis goes from the general to the specific. This infers that a deductive model is structured on identified or stated relationships such as a general hypothesis. This deductive format would be adequate if the appraisal process followed the scientific method freely. Unfortunately, the appraisal process is a limited or rigid procedure that does not allow the origins of the problem situation parameters which are often inductive in nature to alter the original hypothesis of the value definition. If this alteration were allowed, more appropos working hypotheses could be evolved as they relate to the problem situation.

The 3A appraisal process has a limited relationship to the concept of scientific method. They are similar because both the appraisal process and the scientific method are concerned with problems. However, in a scientific method, a hypothesis is formulated in which conjectural

relationships are put forward. This is done to a very limited degree in the traditional process. In appraisal, the hypothetical relationship established is the relationship of the problem situation to current market data through the vehicle or concept of a value definition. Unfortunately, the connecting definition in appraisal is usually market value. The superimposition of one master or general hypothesis form--the value definition--over the appraisal problem does much to classify the 3A format as deductive.

Based on the value definition, the appraisal process goes through the activities of classification. Classification is the next step in scientific method. In scientific method, the classification process is the taxonomy of:

- a) the problem type,
- b) data needed,
- c) the data obtainable, and
- d) preliminary indications.

The 3A appraisal process follows the third step of scientific method, but to a limited degree. Appraisal initially recognizes the problem type. However, in each case, it directs the solution to this problem type by a standard hypothesis. This hypothesis links the data from three approaches to a particular value definition, usually market value as it relates to a specific site. This limited viewpoint of a normative conjectural relationship leads to a directed indication of the data needed and thus the data obtainable. Unfortunately, it may not be sufficient in terms of classification to direct the data that are available to the context of the problem situation. This misdirection

places a limitation on the 3A appraisal process in terms of scientific method. The data available, which may be limited, are often further restricted in terms of what can be used given the limited hypothetical statement as it links the market value definition to the three valuation techniques.

The three valuation approaches are the empirical techniques that take the classified data and direct that data via the research vehicle supporting the hypothesis towards a solution for the problem situation. In scientific method, the choice of empirical techniques may be:

- a) analogy,
- b) statistical analysis,
- c) descriptive analysis,
- d) cause and effect in terms of controlled and uncontrolled experimentation,
- e) observation in terms of lab or field investigation.

The empirical techniques considered in the 3A appraisal are geared around statistical analysis but often in an incomplete form. The techniques are usually of a descriptive nature such as b) and c) above. Statistical analysis is a problem for the appraiser because the data generated or available are often limited and violate the terms of statistical validity. Thus, the 3A appraisal model follows a descriptive methodology. This, however, is in compliance with the institutionalized appraisal process which is a process of measurement.² If this be the case, a descriptive methodology may be all

that is necessary. However, a review of the process indicates that measurement and descriptive methodology is not sufficient to aid most real estate problems. The concern with real estate is directed more toward the decision making process.

The decision making process is more concerned with purpose as directed by the problem situation, and not a purpose that defines a value definition. The application of an inductive approach is valid in this regard because the problem that needs to be solved directs the identification of parameters, which in turn relates to the decision necessary to solve a particular problem (especially those concerned with a heterogeneous, infungible,³ or unique property type situation that is characteristic of real estate, such as a land corridor).

An inductive approach, in working from the specific to the general, allows the direct logical association of productivity attributes to the behavioral attitudes that determine a transaction price (V_t). By identifying these parameters and resulting relationships, a predictive model can be developed since relevant empirical techniques can be more readily documented.

The RGA model is more issue-oriented than the 3A model. Ratcliff, the theoretician behind the RGA model, was concerned with the intellectual problematic format that would take real estate appraisal from being a straight descriptive economic view to one more concerned with prediction in a behavioral context. Ratcliff saw that the empirical techniques used in appraisal could be expanded from simple straight statistical analysis and descriptive analysis to the other approaches suggested by scientific

method. Ratcliff perceived that there was some need for cause and effect determination into the whys of market behavior. He also implied that, given appropriate judgment by the appraiser, observational analytical techniques are applicable in appraisal.⁴

The final step in both the 3A appraisal process and the general scientific method is for conclusions and recommendations. From this perspective, the weakness in the traditional appraisal process is that it is limited to only the conclusion. The report states that this is the market value, with no recommendations as to how to solve the problem situation or achieve the client's objective.

Value Definition vs. Problem Situation

Many perceive that the central issue in real estate is value.^{5,6} Because of this perception, much of the effort in real estate decisions and appraisal is concerned with the definition of the value to be sought. Value is conceptual. Value as a broad concept is given many interpretations. Because of this conceptual flexibility, there is a tendency to interpret value in terms of specific social and economic activities. The effect of this trend and the importance of the value definition to traditional appraisal procedure has led to the 3A process of applying a predefined value concept to a given problem situation.⁷ The acceptance of this procedure, embodied in the 3A model, results in numerous ad hoc definitions of value being defined by various decision makers and the courts to deal with the various real estate problems that occur. Investigation of many of these definitions--such as loan value, sales value, condemnation value, etc.--shows they are adaptations of market value. The adaptations usually retain the majority of the market value assumptions.

Richard U. Ratcliff, the theoretician behind the RGA model, suggested that the concern should not be with the creation of numerous value definitions, but the purpose of an appraisal should be equated with the decision to be made.⁸ As such, the RGA model is more issue-oriented than the 3A model. In this regard it avoids the conceptual origin of the 3A model and can be considered more pragmatic.

The RGA model can identify numerous problem situations. The problem situations direct the parameters (or calculus) by which a value prediction is inferred or simulated. This value inference and/or simulation is based on economic and market analysis of the problem as constrained by institutional factors. Unlike the value estimation of the 3A model, the value inference of the RGA model is not defined by the institutional constraints.

Ratcliff recognized several general problem situations with which an appraiser might deal. He classified ten problems in terms of the type of value they need and the decision parameters related to this type of value. Ratcliff grouped the ten problem situations into five economic activities. His groupings are illustrated in Table 1.

TABLE 1
CLASSIFICATION OF REAL ESTATE TRANSACTIONS⁹

-
1. Transfer of ownership
 - a. Sale
 - b. Purchase
 - c. Trade
 2. Extension of credit secured by real estate
 3. Compensation for damage or loss
 - a. Through condemnation
 - b. For damage compensable under property insurance contract
 4. Taxation
 - a. Assessment for property tax
 - b. Basis for depreciation allowance
 - c. Basis for inheritance tax
 5. Selection of a program of utilization
-

The Importance of Productivity Analysis

to the Value Estimate

The 3A and RGA models differ in their logic format and emphasis of the data as they estimate or preduct a value amount. In both models a value estimate provides the basis for a decision concerning real property. The nature of the decision affects the character of the assignment and the subsequent report.¹⁰

In the 3A model,

the purpose is to estimate a value, but the definition of the value sought dictates the type and character of the data to be gathered, the methods to be employed, the factors likely to wield the most influence, and the type of report required.¹¹

In the 3A model the value definition as the key issue directs the organization and the methodology used in each report. The concern is how this value definition gets linked to the subject property. This link is supposedly made in the 3A model in the section termed "Definition of the Problem." The steps in this section of the 3A model are:¹²

1. Identification of real estate
2. Identification of property rights
3. Date of value estimate
4. Objective of assignment
5. Definition of value.

Both the sections entitled "Identification of Real Estate" and "Identification of Property Rights" are concerned with only the legal attributes of the site. They fail to consider the physical and locational attributes that aid in the recognition of real estate problem situations.

The 3A model analysis goes from the identification of the realty aspects to the objectives of the assignment to the value definition. In essence, the value definition is not tied to all of the static attributes of the property. These static attributes-- which are basically physical, legal, and to some degree locational--

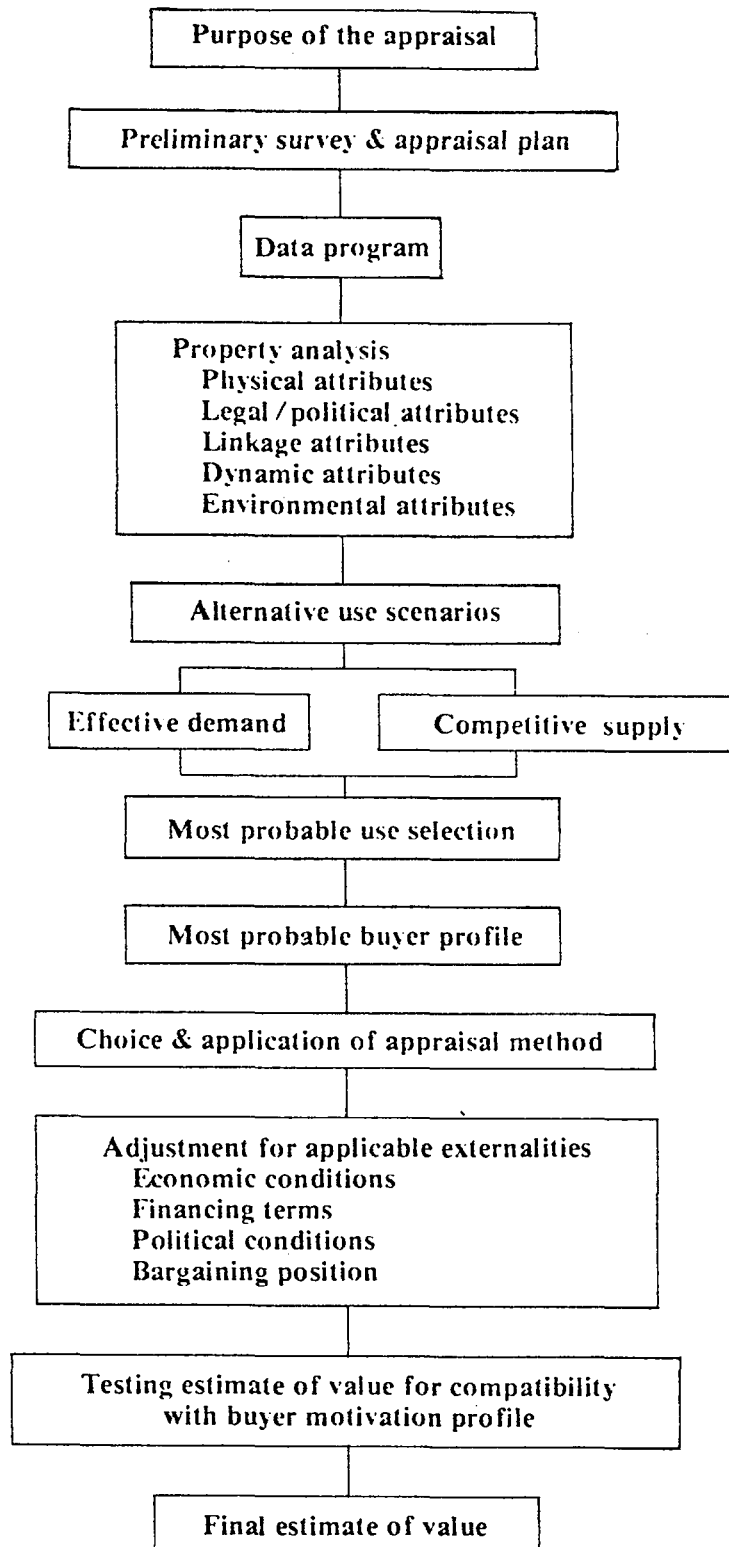
are the most constraining on the analysis because they are permanent or at least not flexible and thus cannot be readily altered to comply with current market standards.

The RGA model has its analytical origins in the productivity analysis of the site. In this regard, it begins the valuation process by considering the physical and locational attributes of the property. An analytical format that begins with the physical, legal, and locational attributes of a property aids the appraiser in identifying the problems of economic and market considerations that are linked to that specific property type. In this way value determinants and the inherent productive characteristics of a property that make it economically desirable can be directly identified. These parameters then directly relate the property to the appropriate value, valuation, and appraisal theory. The format of the RGA model is illustrated in Figure 1.

The procedure suggested by the 3A model superimposes a pre-defined value over the analysis of a particular property type. The result might be an inappropriate value estimate or valuation methodology being applied to any particular problem situation.

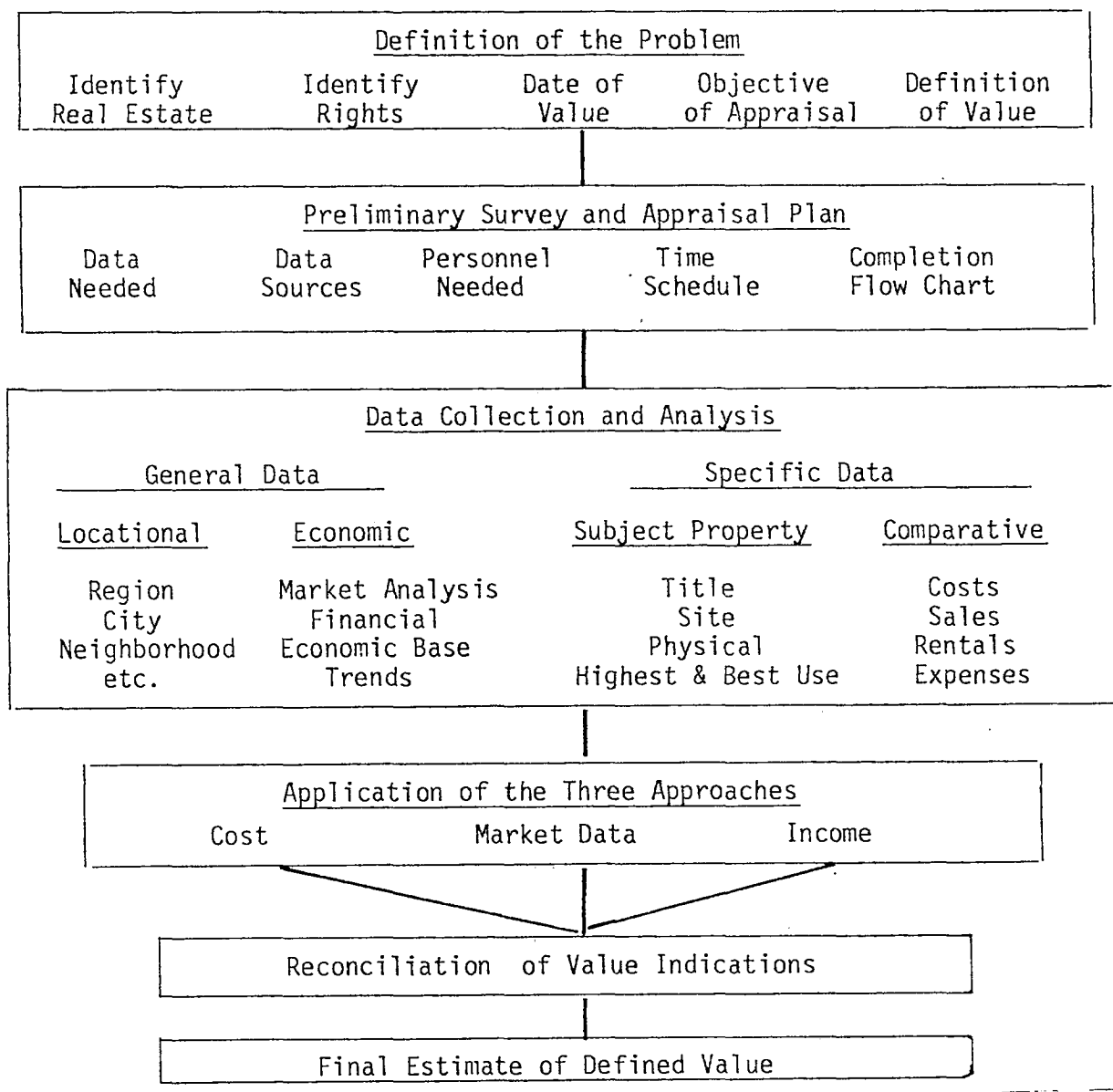
This flow in the analytical origins of the 3A model is witnessed by the fact that the subject property data and specific data dealing with the problem are not collected until after the value definition is determined (see Figure 2). A critical analysis of the 3A process illustrated in Figure 2 demonstrates the inappropriateness of the logic flow. This is especially important in terms of property such as is involved in the RR disposition problem.

FIGURE 1
RATCLIFF/GRAASKAMP APPRAISAL PROCESS



Source: James A. Graaskamp, The Appraisal of 25 N. Pinckney: A Demonstration Case for Contemporary Appraisal Methods.

FIGURE 2
THE 3A APPRAISAL PROCESS



Source: AIREA, The Appraisal of Real Estate, p. 50.

Purpose and Function of Appraisal Within the Logic Process

In recommending that appraisal follow the scientific method more than it does, Ratcliff once again breaks from the 3A model. Ratcliff makes a different distinction between the purpose and function of an appraisal than does the traditional model. In the 3A model the purpose of the appraisal was to estimate the defined value. The function was the reason for which a value estimate was needed. To Ratcliff the purpose is to identify and suggest alternative solutions given the context of the problem situation. What is the issue at hand to which the appraisal is expected to relate?¹³ Ratcliff states that "the appraisal is to aid in the decision making process."¹⁴ This being the case, certain recommendations, at least in terms of a value range, can be made even though the ultimate decision is still retained by the client.

The importance of an inductive process as it can improve the relationship of problem identification to a value estimate necessary

for a decision is illustrated in the matrix of Table 2. This matrix is based on the classification of transactions identified by Ratcliff in his Restatement. The table allows an abstraction of the relationships of problem situations that appraisers experience in regard to the value needed for a decision. This process aids in the establishment of the purpose of an appraisal.

Table 2, based on an analysis of Ratcliff's consideration of appraisal problem situations, aids in identifying the following points:

1. Much of the appraisal report effort should be involved in problem identification.
2. An adequate identification of the problem directs the appraiser as to the purpose of the appraisal.
3. The problem identification--to purpose, to analytical format--suggests an inductive approach is more appropriate for a real estate problem than the deductive method used in the 3A model.
4. Thus, the RGA method, based on an inductive format, improves the linkage of the problem to a value definition that complies with the decision maker's parameters and needs. The inductive format also enables the linkage of value theory to valuation theory (alternative methods), given the context of the problem situation.
5. The above conclusions show that a broader purpose for appraisal than defining value and estimating it is relevant to the actual needs of clients.

6. The value needs (last column in Table 2), given the problem type, illustrate that most probable selling price (V_p) is the value premise most often sought. This illustrates that numerous value definitions are not necessary, but the ability to identify the various problem situations is the starting point for most appraisals. This last observation not only illustrates that a difference in the logic format the 3A and RGA exists, but directly contradicts the general hypothesis on which the 3A model is structured.

Analytical Emphasis of the 3A and RGA Models

The 3A and RGA methods have certain attributes of their models that can be classified as a difference in kind. This is contrary to the discussion of the overall logic formats of the models which can be simply considered as a difference in emphasis. The emphasis on difference in format is due to the initial starting point of the analysis since both are a form of scientific method. The RGA is just more flexible and logical than the 3A method, given certain problem situations.

The concepts that underlie the two models are diverse in theoretical construct. The abstraction of these concepts might emphasize a greater difference in the models than originally perceived. To understand more fully the conceptual bases for both the 3A and RGA models, it is necessary to segment the theories of value, valuation, and appraisal, and relate them to the perceptual differences of the logic formats previously discussed. In this way, the

processes of problem identification and value premises as they relate to the 3A and RGA models can be observed to be more than a difference of semantics.

Value Theory, Valuation Theory, and Appraisal Theory

Segmentation of value theory, valuation theory, and appraisal theory allows a systematic analysis of the 3A and RGA models as they apply to the RR ROW disposition problem.

General procedure is to interuse the terms of value theory, valuation theory, and appraisal theory or methodology. Only one source shed light directly on a method of structuring investigation into the development of appraisal theory: Real Estate Appraisal and Review, by Paul F. Wendt. Wendt implies that there is a difference in the concepts of value, valuation, and appraisal theory when he states that "appraisal theory has lost touch with valuation theory in economics since the work of Irving Fisher" ¹⁵

Wendt also points out

that there has been inadequate recognition in appraisal literature of the distinction noted by economists between value and valuation theory and that this has resulted in inordinate attention by appraisal theorists to the development of income-capitalization techniques.¹⁶

This last statement by Wendt can be taken to imply that the literature fails to recognize the determinants of value and thus fails to let those factors direct the method in which value is estimated. The concentration of the recent literature on the income approach could imply that there is a trend to define value on the principle of anticipation. The principle of anticipation is a valuation concept and not a value premise.

This theoretical confusion, in part, contributes to the failure of the appraisal profession and those concerned with RR ROW

appraisal to accept or develop a logical methodology.

Despite the confusion about what these terms are, many of the appraisal texts¹⁷ are structured into sections on value and valuation (with the term appraisal being interused especially when discussing market value). Reading of these works, however, shows that the concepts of value theory and valuation theory are not interfaced adequately. It is at this point that a need for the restructuring of the appraisal process is sorely indicated.¹⁸

To restructure the appraisal process, it is necessary to define value and valuation theory. According to Wendt, "value theory is primarily concerned with the sources and bases of value," while valuation theory is concerned "with the methods of estimating value."¹⁹ These starting blocks of value and valuation theory enable the analysis of the evolution of the theory behind the 3A and RGA appraisal models, and should shed light on the value premise-problem situation conflict noted previously. Understanding of the theory within these models will further allow the direction of relevant data towards addressing specific real estate problems. This is significant in terms of both the railroad problem and the general appraisal debate.

Given the research to this point and for our purposes, real estate appraisal theory is defined as "the logic format of selecting methodology that links valuation theory to value theory as they relate to the analysis of a specific land use parcel." This definition of appraisal theory allows a strategy for investigating the theory and methodology underlying the 3A and RGA models. The strategy will also

allow a discussion of the relation of theory to the parameters of a specific land use parcel. By comparing the 3A and RGA models in the context of the RR ROW problem, a more appropriate process might be suggested. The comparison of the abstracted model parameters (of the 3A and RGA models) as they are considered in relation to the RR ROW problem context underlies the format of the matrix used to summarize Chapter IV. This matrix is then used to quantify the review of existing RR ROW appraisals. The quantification of the parameters used in the two models allows the statistical valuation of the general and working hypotheses stated in Chapter I.

Evolution of Value Theory in the Appraisal Process

Important in the analysis of appraisal theory is the identification of value determining forces. There are various schools or philosophies that contribute to value theory. To better understand the structure of the appraisal process, it is necessary to understand the value factors identified by the various philosophies, as they relate to the valuation methods of the traditional 3A model and the contemporary RGA model.

Value theory is concerned with what causes a good to have economic value or worth. According to Ring, "The question most frequently posed is: 'What makes value?'"²⁰ Is the value of a property or commodity due to intrinsic qualities or is value entirely extrinsic to the object, being created wholly in the minds of people who seek to possess that object?²¹ Ring states:

Theoretically, support can be given to a contention that, to be valuable, a product must possess certain qualities which attract the buyer and user and thus create a desire for ownership. . . . Such qualities, if indeed assignable to an inanimate object, are then classified as intrinsic and, thus, inherent in the product per se. Those subscribing to a humanistic philosophy of value hold that value is a product of the mind, and that in the final analysis people create value--not wood, steel, brick, or mortar. Adherents to this school of thought hold that value is extrinsic in character, and that logically an object or service cannot possess intrinsic value.²²

The concept of whether value is intrinsic or extrinsic establish the differing basis for the various value theories used in appraisal analysis.

Simeon Leland said:

Economists have grown weary pointing out that nothing has intrinsic value; that the worth of a good is its value in exchange, meaning merely the price it will fetch in the market.²³

If the purchase for extrinsic value is so readily accepted, then why does the appraisal literature which follows, resound with debate about the difference in price and value, why does the literature deal with concept called value-in-use, and why does a need to distinguish between subjective and objective value occur?

History can aid in this quest. The works of the ancient Greeks and Romans,²⁴ indicate that they thought of value as an absolute quality inherent in a thing.²⁵ Also, during the Middle Ages, the central doctrine of "just price" was based on the idea that value was a quality inherent in a commodity.²⁶ Both of these economic value issues were supported by religious and philosophical principles that have carried the influence of the intrinsic value concept into the present. The doctrine of justum pretium (just price) versus what one could sell an object for as freely determined by the market (a process

considered immoral at that time) established the concept of cost of reproduction as a value basis distinguished from the exchange value or market price.²⁷

The period of the mercantilist saw a transition from the acceptance of religious and philosophical concepts of value to the beginnings of the acceptance of intrinsic and extrinsic values on a political-economic basis. Writers of the time such as Grotius and Pufendorf distinguished between value in exchange and utility.²⁸ The former concept constituted an objective value molded by the forces of supply and demand. The latter was a measure of the object's inherent utility to render service or satisfaction in use.

As will tend to be the case for all economists, the mercantile writers continued to be influenced by the earlier doctrine of "just price," tending to identify it with "normal" market price.²⁹ This difference between intrinsic and extrinsic value, with value in exchange illustrating market activity, while utility supports a value in use based on an inherent or warranted value concept, suggests many of the subsequent value theories that have evolved. According to Weimer, the writings of the mercantilists were often confused and contradictory.³⁰ It is observed that this confusion has continued in the current state of the art of appraisal.

The 18th century witnessed a break in economic thought from the religious and judicial influences of the Middle Ages and the political overtones of the mercantilist. This separation, at least in terms of the economic considerations being primary, was the result

of the works of a group called the Physiocrats. The Physiocrats were concerned with the economic problems growing out of the reigns of Louis XV and Louis XVI.³¹ As with many economic thinkers, the Physiocrats' analysis was directed by the economic conditions of a particular period.

The Physiocrats' contribution to value theory was the recognition of the distinction between utility and value.³² They did not regard value as something inherent in things.³³

Value in use was differentiated from value in exchange. There was a tendency to identify price and value and perhaps to over-emphasize exchange value. They [Physiocrats] were interested in the fluctuations of market prices which they explained on the basis of "the rarity or abundance of production or the more or less competition of sellers and buyers."³⁴

The Physiocrats' value theory, based on distinction between utility and value, emphasized an extrinsic orientation to value measurement. The classical school that followed recognized this distinction but tended to emphasize the use and an intrinsic concept of value.

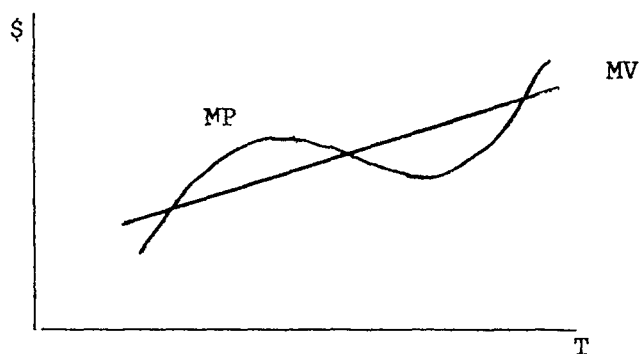
The classical school of economics, beginning with the writings of Adam Smith, perceived value to lie in the cost of reproduction.³⁵ This illustrates an orientation towards intrinsic value--i.e., the value is in the thing itself. Smith, however, placed the intrinsic concept within a market orientation. According to Ring, Smith "logically demonstrated that it was only when utility of a service or good was accompanied by conditions of scarcity and demand that exchange or market value could arise."³⁶ Smith, going a step further than the Physiocrats, stressed the distinction between "value in use" and

"value in exchange." Ring states that a major contribution of Smith to value thought

was the . . . distinction between the concepts of "market value" and "market price." Market (or "natural") value undoubtedly referred to "normal" prices that covered long-term costs of wages, rent, and price. Market prices--to the extent that such differed from natural prices--reflected short-run influences exerted by temporary forces of scarcity or monopoly.³⁷

The distinction between "market value" and "market price," as conceptualized by Smith, can be illustrated as in Figure 3.

FIGURE 3
Conceptual Illustration of Market
Price and Market Value



These central concepts of price versus value and value in exchange as opposed to value in use underlie the varying analysis reflected in the general appraisal debate. The significance of these factors will be more apparent in the economic writings of Marshall and Ratcliff.

Ricardo and Malthus were two other writers of the classical economist group who contributed to value theory. "Ricardo pointed out that a commodity must be useful to have exchange value, but being

useful, its value will not be in proportion to its usefulness, but rather to its scarcity or to the quantity of labor required to obtain it." ³⁸ Ricardo recognized the importance of value in exchange. He also demonstrated the difference between the inherent productivity of a good and the concept of inherent or intrinsic value. Ricardo recognized that, if the extrinsic value determinant of scarcity is missing, then the effort it takes to create the good is not a method of determining value itself, but rather a method of simulating the value of the object. This reproduction cost approach to value, allowing for value not equal to utility alone, philosophically supports the cost approach to value in the 3A model. However, there is some confusion in Ricardo's value theories. Ring infers that both Smith and Ricardo held that production creates its own demand. ³⁹ This is consistent with the importance of the place of scarcity in value determination but fails to recognize the behavioral or extrinsic aspect of demand as a value determinant.

Malthus addressed these inconsistencies with the development of a theory of underconsumption. "He warned that production does not create its own demand and that overproduction or underconsumption may . . . create market gluts." ⁴⁰ Malthus thus recognized the importance of current market behavior in setting the price (and value) for commodities. Malthus illustrated the importance of these extrinsic value factors as he applied this concept in his theory of rent. Malthus considered rent to be a "price determined (surplus) return to the landowner and not, as held by Adam Smith, a price-determining cost

of production."⁴¹ The price-determined residual return to land was further developed by Ricardo in his classical rent theory based on land productivity.

The Austrian School of Economics, or the economic psychologists, recognized the shortcomings of the classical school in overemphasizing one extreme of economic analysis--production. They dealt with this problem by stressing the other extreme of economic analysis--demand.⁴²

While the classical writers had tended to dismiss any definite or exact relation between value and utility, the "marginal utility school" placed new emphasis on the importance of utility or usefulness of a commodity in determining its value. The classicalists considered usefulness only as a condition of exchange value and not as a determinant of value.⁴³

Weimer says:

[The "marginal utility school"] stressed the principle that cost of production affected value only as it affected supply. They held that cost was derived from price and was not its cause and argued that the effective use-value of any commodity decreased as the supply was expanded, pointing out that it was use value of the last or marginal addition which determined the value of the entire supply. Thus the "marginal utility" was the usefulness of the "last" unit added to the supply which presumably would be put to the least important use of all units available.⁴⁴

This marginal theory applied in the context of land economics might re-create some conceptual difficulties. One difficulty is due to the Austrian school's opinion that, since "all of the units were interchangeable, competition would reduce the value of all of them to the value of the last or marginal unit."⁴⁵ The concept of interchangeable units implies a fungible good. Real estate in most instances is infungible.⁴⁶ Based on physical and legal constraints, this implies under many land uses that real estate cannot be

interchanged. However, in some legal and economic situations,⁴⁷ Ratcliff points out that the application of marginal analysis can be used based on the economic mobility of land. This is especially true if real estate is considered as a money-time exchange unit. Based on these two factors, the possibility of real estate as a fungible commodity is increased. This value concept of fungibility supports the space-time/money-time equation proposed by Graaskamp which allows the RGA use analysis to seek a possible "spatial monopoly"⁴⁸ as the satisficing land use alternative.

Despite this concern of marginal analysis as it applies to land, marginal utility price theory forced a new realistic approach to the value problem as a whole, "centering attention upon the behavior of actual human beings in competitive relations each attempting to make the best of his situation in the buying-and-selling economic system."⁴⁹

The marginal utilitarians and the classical economists illustrate value theories representing respectively both the concepts of extrinsic and intrinsic values. Through their writings the main value determining factors are identified. The value determining factors are utility, scarcity, effective demand, and transferability.⁵⁰ The value determining factors direct the data gathering needs of the appraisal process. However, none of the economic schools suggested methodologies to estimate the value of the assets being considered. This is a major function of the appraisal process. Furthermore, the writings of the classical school and the Austrian group initiated

another conceptual problem in value theories--the consideration of time.

In regard to time and value, the classical school via Smith, Ricardo, Malthus--and its reformers, John Stuart Mill and Karl Marx--were concerned with concepts of "normal value" and "normal price" that consider long-term value aspects. The Austrians, looking to human behavior aspects, failed to "distinguish the effects on value of both short-run and long-run economic tendencies and demand."⁵¹ In terms of appraisal theory the time frame is significant, especially since the long-term classical economic theory supports the cost approach in the 3A model and must have influenced Marshall's notion of a theory of equivalence. This conflicts with the marginal utility theory that underlies Bohm-Bawerk's theory of interest and the traditional income approach and that also theoretically supports the use of market price as a value indicator. These shorter-term theoretical concepts support the income and market approaches that are also considered in the 3A model.

The combination of these contradictory or inconsistent value theories into one model, with the model failing to allow for the recognition of these conceptual differences as to a value basis and a time frame has led to much of the debate within the appraisal profession.

Much about these inconsistencies becomes more explicit in the investigation of valuation theory. The study of the various schools of value, though, have allowed an understanding of the theoretical

origins of the 3A and RGA models. Further, the research has enabled the author to identify various parameters that should aid in the abstraction of the 3A and RGA methods as the models link their supportive value theories to the valuation methods to be considered next.

The parameters identified from the value theory are:

1. Intrinsic vs. extrinsic value
2. Value-in-exchange vs. value-in-use
3. Long-term analysis vs. short-term value concepts
4. Market value vs. market price
5. The relationship of productivity, cost, and demand
6. Utility vs. inherent value
7. Value determinants--their nature and origins.

These parameters will be important in abstracting the valuation methods of the models and their relative logic formats.

Value Determinants

The above literature search aids in an understanding of the criteria that contribute to the basis of value of real estate. The major areas of concern are:

1. Utility--which is concerned with the qualities and attributes of an object that enable it to satisfy needs and desires.
2. Scarcity--which is relevant if considered in economic terms as it relates to demand for an object. It allows the recognition of competitive alternative uses for economically limited resources.

3. Effective demand is important in recognizing the behavioral preference for commodities and combined with 1 and 2 above forms the foundation for a market analysis. Effective demand is relative in economic terms because it not only recognizes human desires for properties, but also the effective purchasing power to obtain those desires.

4. Transferability--this is a very important aspect of real estate value, since the physical good is immobile. Law and economics show that legally real estate is transferable and urban land economics show that it is economically feasible.

The value determinants are components of both the 3A and RGA models. As the appraisal logic and the productivity analysis has shown, the determinants often receive a different emphasis in the methodology of the models.

The different emphasis is in part due to the models' treatment of the forces that influence value: (1) social, (2) economic, (3) governmental regulation and political forces, and (4) physical or environmental forces.⁵²

In the 3A model many of these criteria are incorporated into the definition of value or may be enumerated in the assumptions listed within the defined value concept which considers these factors relevant to different decisions.

In terms of the 3A appraisal format, these forces are often covered in the background data and a direct relationship to value determinants is lost. The RGA model directly considers the value

determinants and their relationship to the environmental forces influencing them. Utility and transferability are considered in the productivity analysis via physical, locational, and legal attribute analysis. Scarcity and effective demand are considered in the market analysis from both a supply and demand perspective--i.e., competitive properties and stratified market, buyer's motivation. The 3A model limits its market analysis to the substitutable properties.

In terms of the social, economic, governmental-political, and physical-environmental forces, they are treated as constraints on the market determinants and productivity analysis of the RGA model.

Extrinsic Value

The value premise on which the appraisal analysis is based serves several functions:

1. In the 3A model it directs the definition of value that is estimated in the report.
2. In the RGA model, once the problem situation is identified in relation to the productivity analysis so that the appropriate use scenario can be selected, the value premise aids in choosing the valuation techniques that are appropriate.
3. In both models the value premise supposedly links the data available to the question to be solved in order that a decision can be made.

The value premise--that is, the nature of the value to be sought--sets the tone of the appraisal methodology. Therefore, to better understand the strengths and weaknesses of any appraisal model, it is necessary to analyze the value structure that it reflects.

Both the 3A and RGA models are constructed on the basis of an extrinsic value. Both models accept the premise that

Value is not a characteristic inherent in real property itself. Value arises from the relationship of the real property to those who constitute the potential market and varies from person to person and from time to time. ⁵³

Ratcliff emphasized the importance of an extrinsic value concept when he said:

It warms the cockles of this old heart to see the author [Graaskamp] take off directly from his client's problem to develop maximum guidance towards its solution. There is no trace of the outmoded belief in the existence of an inherent value. He predicts the probable selling price--a market price, not a vaguely defined value figure. ⁵⁴

It is important to recognize the basic value premise on which the 3A and RGA models are based, because extrinsic value with its humanistic behavioral concerns of consumers toward the utility qualities of real estate shows that utility alone is not perceived as a value estimate, but only as a simulation of value (according to Ricardo). A value estimate cannot be fully documented without an understanding of the buyer's calculus. Thus, by recognizing the importance of extrinsic value, the relevance of value-in-exchange and more specifically market value as concepts to guide appraisal methodology can be placed in perspective.

Several conflicts in the 3A model occur between the appraisal methodology and the stated value premise. Since the value definition is determined before the appraisal is required, a logic problem often occurs in terms of the process's systematic analysis of a situation. This problem is explained by some as a conflict between or mixing of

intrinsic and extrinsic value premises in the 3A model. Babcock states that "both appraisal practice and appraisal jargon tend to suggest that there is really only one value and that each property, at any moment, has a value" ⁵⁵

Babcock implies that the methodology of the 3A model suggests an intrinsic value premise. He attributes this in part to the 3A appraisal process in which value is first defined and then the value premise is superimposed over the valuation methods as they are applied to a specific property ⁵⁶ (perhaps failing to recognize a specific problem to be solved).

Wendt and Ratcliff, of the contemporary school, might attribute part of this value premise dilemma to Babcock based on his price-value dichotomy. Babcock says that price is not value. ⁵⁷ Wendt states that this influenced the use of many value definitions in appraisal. ⁵⁸ The dichotomy established the premise of using numerous value definitions; some that are used, such as value-in-use and cost of reproduction, have an intrinsic value premise implied. ⁵⁹

Wendt disagrees with the acceptance of these various value premises and states, among other things, that (1) market value should be viewed as the central concept in real estate valuation; and (2) market prices are the most reliable indicators of market value, and market comparisons should be the most important criterion of value. ⁶⁰ Two relevant points are indicated:

1. Market value (V_e) is a value-in-exchange concept based on extrinsic value;

2. Market price (V_t) is the best indicator of a behavioral market that connotes an extrinsic value premise.

The concern here is that, if the 3A model is based on an extrinsic value concept as the AIREA and SREA it is, then why is Wendt suggesting that an extrinsic value concept is a more appropriate premise than the current value basis of the 3A model. Wendt never states what the current value basis of the 3A model is, but he implies that it is an intrinsic value concept.

Ratcliff might attribute some of the intrinsic value problems perceived to be in the 3A model to Babcock, but only because of the price-value conflict. Ratcliff considered price to be an appropriate indicator of a behaviorally-oriented value-in-exchange. Ratcliff believed that appraisers had limited themselves in their role to defining market value. By concentrating on this purpose, he inferred that they implied there was an inherent value in each piece of property and it was the role and function of the appraiser through their judgment to identify what that particular value was. Ratcliff agreed with Babcock that the methodology used inferred an inherent value, but he also blamed the market value concept itself for the intrinsic value orientation of the 3A model. Ratcliff suggested that fair market value based on willing buyers, willing sellers, everyone knowledgeable and everyone receiving an equitable return, tends to have its link to the medieval concept of "just price."⁶¹ Therefore, the traditional appraisal process that supposedly evolved from numerous schools of thought and pragmatic interactions is still linked definitionally to the inherent value concept of a just price which evolved out of the theoretical and religious doctrines of the Middle Ages.

The implications of the above statements are that the 3A model is explicitly stated to be based on an extrinsic value premise. However, because of its appraisal format, which applies a value concept as predetermined to a limited identification of the problem, an intrinsic value premise seems to exist in the model. This could be a problem in terms of RR ROW appraisal because it is possible that some abandoned ROW could have no value in terms of extrinsic market demand for the attributes it offers (especially if the market is responding to cost-benefit considerations). However, a model with an intrinsic value premise could indicate a positive value to most land while an appropriate analysis of the market data might indicate the no value.

This dilemma recommends two other areas of research in terms of the general debate.

1. Does the logic format of the appraisal influence its value estimate in terms of amount? This was considered in the debate of 3A deductive format versus the inductive format of the RGA model.

2. Does an intrinsic value premise exist in the 3A model or does the likelihood of an indication of no value in the RR ROW market result from an inappropriate link of value to valuation theory?

Value in Exchange

Value in exchange is:

the amount of goods and services or purchasing power which an informal purchaser would offer in exchange for an economic good under given market conditions.⁶²

Value-in-exchange is an extrinsic value. Value-in-exchange is market determined, and relative in that comparison with other economic goods is necessary. Exchange value is concerned with the behavioral response of market participants in regard to the alternatives that are available. This behavioral concept of value directs the valuation methodology to which exchange value can be estimated. However, the value-in-exchange definition as applied within the two models is different. Value-in-exchange is the underlying conceptual basis for market value in appraising. It is also the foundation for most probable selling price.⁶³ This common conceptual basis might be part of the reason V_e and V_p are only considered semantically different.

The 3A model is premised on the concept of value-in-exchange usually represented by a market value definition (V_e).⁶⁴ The RGA model is based on the theory of most probable selling price (V_p) proposed by Richard U. Ratcliff. In supporting the probable selling price basis, Ratcliff states that it is a fundamental and elementary economic truth that things, including real estate, are valuable to people because they provide a flow of services, satisfactions, or dollars. Only when it is productive as benefits does real estate command a price in the marketplace, a price which is its value in exchange.⁶⁵ There is further support for value-in-exchange as the underlying premise of the RGA model if Ratcliff can be assumed to have been influenced by his mentor, Richard T. Ely. Ely believed that "the only value is value-in-exchange."⁶⁶

Value-in-exchange reflects the actions of buyers, sellers, and investors in the market.⁶⁷ As such, it is an extrinsic value concept. However, it is an important intermediary concept because it supports the "fair market value (V_e)" premise of the 3A model and the "most probably selling price (V_p)" of the RGA model.

By using a value-in-exchange pretext, both the 3A and RGA are observed to be behavioral market models. However, as the analysis of the V_e assumptions will show, the 3A model uses a stylized behavioral basis, which can be inappropriately distorted by externally defined value concepts such as NLV in the RR context.

The discussion on fair market value to follow will investigate the significance of these stylized behavioral assumptions in defining the V_e concept. Interestingly, the terminology books of the Institute and Society, as well as the SREA's principles book, state the same set of assumptions for value-in-exchange as they do for V_e .

These stylized behavioral assumptions have been established by law and literature for market value over time. The same assumptions have been more recently adopted (mid-1970s) to support the value-in-exchange definition by the real estate academics at the University of Connecticut. None of the literature prior to Kinnard and Boyce's work has indicated that these assumptions are necessary to have an exchange value. The application of the assumptions to value-in-exchange has contributed to the failure of many appraisers to recognize more than a semantic difference in V_e and V_p , since both value standards are based on

value-in-exchange. The V_p definition does not need to include the stylized behavioral assumptions of V_e . With Kinnard and Boyce's redefining of value-in-exchange the assumptions of stylized behavior are indirectly attributed to the V_p concept. The indirect application of these assumptions thus allows the erroneous equation of V_e to V_p and the misconception that only a semantics difference in the two value perceptions exist.

RGA on the other hand allows for a range of value estimates based on a pragmatic market behavior observing process supported by the V_p definition, which will be shown to be conceptually different from 3A's V_e .

Fair Market Value vs. Most Probable Selling Price

Fair market value (V_e) and Most Probable Selling Price (V_p) are the two value-in-exchange premises on which the 3A and RGA models are structured.

Much of the primary literature in appraisal states that V_e and V_p are virtually synonymous.^{68, 69, 70} This erroneous equating of the two concepts is in part due to the interchanging or equation of their definitions.⁷¹ Also, the fact that both models use market prices to estimate either V_e or V_p , respectively,

might have led to this confusion. A significant reason for this confusion is illustrated by Grasskamp when he states:

The concept of value is pivotal in the difference between the traditional and contemporary appraisal approaches. It is more a difference of emphasis rather than emphasis in kind.⁷²

The difficulty of recognizing the difference in the two models lies in the effect that the RGA's logic approach views and emphasizes the same data in a different manner than the 3A. RGA does not use different data--i.e., appraisal theory is confused with value theory. That is to say that understanding what gives real estate value is different from recognizing that various logic formats can deviate in the manner in which they link the value determinants to the way in which the value is estimated. In this regard, the value definitions are important because they (along with the logic format of the models) cause the difference in emphasis used in the models.

To better understand these analytical departures, it is necessary to comprehend the concepts of (1) fair market value, (2) most probable selling price, and (3) market price.

The concept of market value is best described by its definition:

Market Value--The highest price in terms of money which a property will bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus.

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. buyer and seller are typically motivated;
2. both parties are well informed or well advised, and each acting in what he considers his own best interest;
3. a reasonable time is allowed for exposure in the open market;
4. payment is made in cash or its equivalent;
5. financing, if any, is on terms generally available in the community at the specified date and typical for the property type in its locale;

6. the price represents a normal consideration for the property sold unaffected by special financing amounts and/or terms, services, fees, costs, or credits incurred in the transaction."⁷³

An abstraction of this definition identifies the following criteria and assumptions that are implicit in the definition:

1. the highest price paid
2. by a willing buyer
3. to a willing seller
4. given that both have full knowledge of all possible uses to which the property can be put
5. neither under duress to act
6. with the condition that the property is exposed in the market for a sufficient time
7. at the current financing conditions or terms.

Observation of the real world market for real estate (as well as many other products) emphasizes the conflict between the assumptions of the market value definition and the pragmatic operation of real estate negotiations. The conflict of the market value concept and real estate markets are exemplified in the recent articles by Kruggel and Albritton concerning this problem.^{74,75} Albritton recommended the following changes in the accepted market value definition:

Market value is defined as the estimated price, in terms of money, which a property should bring in a competitive and open market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently and knowledgeably and presuming the price is not affected by undue influence.

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated.
2. Both parties are well informed or well advised, acting in what they consider their own best interests.
3. A reasonable time is allowed for exposure in the open market.
4. Equity payment is made in cash or its equivalent.
5. Financing, if any, is on terms generally available in the community at the specified date and typical for the property type in its locale.
6. The price represents a normal consideration for the property sold, unaffected by special financing amounts and/or terms, services, fees, costs, or credits incurred in the transaction.⁷⁶

As a member of the Institute, Albritton recognizes the inappropriate application of market value to a real world problem because of Ve's definitional assumptions.

Albritton's first concern was with the notion of "highest price."⁷⁷ This standard was addressed by Kinnard in 1965 when he discussed the propensity of real estate consumers to satisfy rather than maximize.⁷⁸ Albritton states that "price is partially the result of varying negotiation skills" and does not necessarily have to result in the highest price.⁷⁹ He further states that

market value . . . doesn't mean highest price in a literal sense, but the most probable price at the highest and best use. This is consistent with the observation that the market value estimate would be the highest value reflected by detailed analysis of all logical potential use and development alternatives.⁸⁰

Albritton charges that the appraiser's responsibility is estimating the most likely, most probable, or most reasonable price to buyer and seller, under conditions prevailing in the open market as of a date of the appraisal.⁸¹

This critique of appraisal purpose tends to parallel the statements of Ratcliff.

Albritton continues that the market value definition emphasizes price in "terms of money."⁸² This has directed many appraisers to believe that market value is always expressed in terms of a cash transaction. However, the real estate market does not operate on an all-cash basis. This is in part due to the nature and magnitude of the product and the economics of leverage practices in the current market. In fact, Albritton points out that the definition in the Terminology book is confusing because of the conflicts between items 4 and 5, above, the former stating that value is in cash terms, and the latter allowing for financing as it might affect value. The earlier definition of market value does not state whether value is an all-cash concept or not:

Market value is the highest price in terms of money which a property will bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently, knowledgeably and assuming the price is not affected by undue influence.⁸³

Appraisal practice, however, has restricted value to a cash concept. In either case, Albritton's remedy of considering only equity in cash terms and ignoring the use of the project's cash equivalency does not adequately illustrate market behavior. He does, however, adequately consider the need in appraisal to recognize what financing procedure is typical of that property and its submarket.

Finally, Albritton's criticisms of market value may reflect the influence of Ratcliff's and Graaskamp's work in appraisal thinking since the early 1970s. Albritton attacks the terms of the traditional V_e definition such as "will bring," and recognizes the problems of the

terms "specified date" and "reasonable exposure required."⁸⁴

The term "will bring" implies a major conceptual problem in the communication of appraisal value in that the term conveys value as a fact. Value is a concept. Albritton points this out, but in so doing identifies a major problem of market value and appraisal in general. He states that market value is an opinion as to what the property should bring.⁸⁵ This concept illustrates the normative nature of appraisal analysis despite the uncertainty involved in a value estimate. The uncertainty could be made explicit in the report by a probability range around the value estimate.

The themes of normative behavior in an uncertain environment are carried over into Albritton's concern with the terms "specified date" and "reasonably exposure required." These terms represent a problem with the normative character of appraisal. The normative concepts influence procedural methods of appraisal by the fact that the date and exposure terms contribute to the measurement versus prediction debate between the traditional and contemporary schools of appraisal theory.

In regard to the date and exposure debates as they relate to the measurement and prediction concerns, Albritton infers that the appraiser cannot support market value estimates in the future.⁸⁶ He says:

It is my opinion that the market value definition presumes a theoretical contract of sale and transfer, in terms of money at present purchasing power, will occur on the appraisal date. Obviously, such a transaction would be unusual and would not satisfy other parts of the definition, but the theory appears logical and practical.⁸⁷

According to Albritton, this could conflict with other parts of the definition. It also ignores the long-term equilibrium premise on which Marshall structured the market value concept.⁸⁸ Direct value measurement of a specific data conflicts with the notion and uncertainties implicit in the concept of the need for a reasonably period for market exposure.

The needs of the decision maker and the context of the problem situation should govern the methodology of an appraisal report and not the implicit assumptions of the value definition.

The conceptual conflicts of the market value definition with the observation of real estate market realities support the desirability of another value premise on which decisions can be made. The contemporary school has addressed this issue with the concept of most probable selling price (Vp). Most probable selling price (Vp) is defined as:

that selling price which is most likely to emerge from a transaction involving the subject property if it were to be exposed for sale in the current market for a reasonable time at the terms of sale which are currently predominant for properties of the subject type.⁸⁹

The SREA and AIREA have defined Vp as:

that price at which a property would most probably sell if exposed to the market for a reasonable time, under market conditions prevailing as of the date of the appraisal.
See also Market Value.⁹⁰

These definitions are similar except in their last statements where Ratcliff (who devised the concept) links the concerns of the value premise to the negotiating process for the property--i.e., "terms of sale currently predominant for properties of the subject type." The

The AIREA-SREA definition seems more concerned with the general real estate market (for properties of this type) when it states "under market conditions prevailing as of the date of the appraisal."

In the 3A model methodology, market conditions are usually considered in terms of time adjustments. Therefore, concern for market conditions could be considered as a method to adjust comparable sales (i.e., looking at the supply side rather than demand behavior to understand the motivations of market participants). The treatment of these definitions give an insight into the logic difference of the two models.

Many in the traditional and contemporary schools state that $V_e = V_p$ and that the terminology is only a matter of semantics. Albritton recognizes that they are not when he says,

The controversy relates to whether the ultimate price reflects present market value or probable price several weeks, months, or years hence.

It is my contention that any estimate of market value must presume theoretical exposure has occurred by the appraisal date. Otherwise, the value must be projected to some future date and labeled something other than market value. The latter approach is weakened by diverse uncertainties such as future supply and demand, income and expense levels, purchasing power risks, changing investor yield requirements, speculation on adequate market exposure requirements, and discount rates.⁹¹

In this statement, Albritton reinforces that the value definitions represent different time periods, different levels of uncertainty in estimation, and the use of appraisal for different decision purposes. The significance of the difference of emphasis by the two models (3A and RCA) will be more clearly understood in the abstraction to follow.

The Varying Concepts of V_e , V_t and V_f

Addressing the same issues in the mid-1960s that concern Albritton currently, Ratcliff developed consideration that value as defined was not appropriate for most real estate decisions.

Ratcliff recognized that the definition of market value which he symbolizes as V_e contains an ethical or equity concept that has evolved in theory and practice because of the influences of the course and the law.⁹² This ethical content well reflects the assumptions implicit in the value definition that came out of an early railroad condemnation suit.⁹³ The ethical content of V_e as it developed from this court decision is in addition to the conceptual debate between price and value arising out of Babcock's 1930 works.⁹⁴ Babcock's works state that price is not equal to value. This conceptual dichotomy is still represented in the course teachings of the professional appraisal organizations. They are:

1. Market Price is an historic fact. It does not look to the future as Market Value does. It is usually an actual transaction or sales price. Market Price is an accomplished fact; Market Value is an estimate.
2. Definition. Market Price is "the amount actually paid, or to be paid, for a property in a particular transaction."
3. The parties are not necessarily informed in an actual sales transaction: nor do they act rationally, free from pressure, or independently (at arm's length). Market Price does not have to be justified, as does Market Value. The financing or other terms of sales may be unique or may vary widely from typical market practice. The entire transaction need not be "typical."
4. Market Price may be greater than, less than, or possibly equal to Market Value in any given transaction.⁹⁵

Market prices (V_t) are used in the 3A model only as indicators for market value. Price is considered to be a historical fact as to how much was spent in the past on similar properties. Estimation of

V_t or a price in general is not the goal of the appraiser. V_t is considered inappropriate as a value surrogate because of the notion that V_e is a justified price. Therefore, for V_t to support the justified concept supporting V_e , a normative adjustment process of looking at comparable sales and their V_t 's must be conducted to justify the V_e measurement to the subject property. The process is considered normative because the supply side is observed to obtain indicators of demand behavior.⁹⁶ The result is that explanations as to value difference are made on the basis of what should happen, not on what occurs. The result of this normative adjustment procedure is that the 3A model devolves the behaviorally influenced negotiation for property down to a neutralized transaction that is considered a justified price.

A major problem with the application of this justified price is that "numerous definitions of fair market value have been devised over the years by professional organizations, government bodies, courts, et cetera."⁹⁷ These definitions are subject to change over time and because of jurisdictional area. This contributes to the ad hoc theory supporting the appraisal process and contributes to the complexity of the railroad problem if decision makers try to consider the rail property in its totality, as it crosses several jurisdictions.

Ratcliff takes issue with the concept of market value and the distinction made in the 3A process between price and the value-in-exchange sought by the appraiser. He states that this "value concept with which the appraiser had dealt in the past has been an inherent

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GARY DILMORE, SRA

June 22, 1978

Professor James A. Graaskamp
202 A Breese Terrace
Madison, Wisconsin 53705

Re: The Appraisal of 25
N. Pinckney

Dear Magister:

Please excuse these hasty and unorganized notes (also the tipeing), since I notice this has bounced around in the mails a couple of weeks before I got it, and early comments might be more appreciated than more profound ones received too late, so, our secretary being off this week, I'm pecking this out probably a little messily, but with the best of intentions.

Scenario #6

Scene: Pan of beach at Somewhere, FL, zooming in on Abe, who is simultaneously wriggling his toes in the warm sand, sipping a cool one, ogling a foxy chick wearing a red string, and calculating his annuities. Enter Wife: We've got this mail, Abe, a report of some kind.

Abe opens report: For my little store, an 84 page report, already! My God, what does the bill--Wife: Here it is, Abe, let's see, 1,250 man-hours work @ \$50 per hour--

Gasp from Abe. Collapse. Cardiac arrest. Instantaneous, etc. D.O.A. Grief-stricken widow stops by lawyer's office on way to funeral home, sues appraiser. Demise of dear departed direct consequence of shock induced by lengthy & expensive appraisal. Wins. T.S. for appraiser: his policy covers omissions, but it doesn't cover inclusions.

But seriously fokes, this is awfully refreshing to see an approach to presenting a real solution to a real world problem, ignoring the stultifying dogma most appraisals are wrapped in and dictated by. But where on earth is the cost approach? Don't you know that an income property report without its cost approach is like a duck without its roller skates??

Really, the only comments I can add that might be any help at all are the following, which will all be just about the regression, P. 54 of report, P.75 of monograph. And this really all boils down to one thing: dangers of a very small sample.

r^2

The r^2 used is unadjusted for degrees of freedom, which makes some difference with this size

sample:

$$r^2 = 1 - (1 - r^2) (n-1) / (n-k-1)$$

For subject, we've got an adjusted r^2 of .53 rather than .63. (By the way, my numbers may be a smidgen different because I didn't round till the last number; frinstance, I've got std error of \$9.99 rather than 9.89.)

S_{yx}

The standard error ^{of estimate} would correctly measure the confidence interval, iff the subject's x value or values coincided with the mean of the observations. Otherwise, we really should use the standard error of the forecast:

$$S_f = \frac{1}{n} + (x_k - \bar{x})^2$$

$$S_f = \sqrt{1 + \frac{1}{n} + \frac{(x_k - \bar{x})^2}{\sum (x - \bar{x})^2} \cdot S_{yx}}$$

This gives us a standard error of forecast of \$11.13 sq.ft., or 1.11 times the standard error of estimate. (\$76,641)

Confidence Interval

This also expands our confidence interval to (rounded) \$73,500 to \$227,000. If we wanted a higher conf. level, rather than the 68%, we got a problem: For a rather diffident and modest 80% confidence interval, we get somewhat zapped, since we've got to use a t of 1.638, rather than the z, so we get an interval of \$24,800 to \$276,000 (rounded), which non-confidence inspiring range may upset Abe even further.

If we really want to ruin his day, we can cite him a still fairly modest 90% confidence interval, which requires a t of 2.343, giving a range of Minus \$30,000 to Plus \$330,000. (The 90% is actually what I usually cite.)

The Good Ole Mean

So, is all lost? I thought you'd never ask. Not really. Why don't we use the lowly mean, & trick it into combining our factors, and just lose 1 degree of freedom instead of 2?

I always like to take a closer look at my original distributions, for starters. Thusly:

<u>Distr. of Price s/f</u>	<u>Distr. of Scores</u>
Mean	38.51
Std dev	14.59
Coeff. of dispersion	.38
Std err of mn	5.96
Mdn	32.86
Approx. Mode	21.55
Skewness (1)	.39
Kurtosis (2)	-.11
(1) Using Mn-Mdn/Std dev	
(2) Scale of ± 3	
(2)	

So, sq.ft. prices are (expectably) substantially skewed to the right, the calculated scores a teeny bit to the left; prices a little flat, scores considerably. Hmm. Could we pull in the ends of those curves a little, & peak it some, too, by combining them? You betcham, Red Ryder. Like so:

<u>Distribution of Price Sq.ft/Score</u>	
Mean	\$10.87
Std dev	\$2.12
Coeff of disp	.20 (Beats the regression)
Std error of mean	\$.87 (Only 8%!)
Mdn	\$10.87 (These are rounded)
Mode	\$10.86
Skewness	.0015, or zero
Kurtosis	-.33

So, using this to predict the value, we get: (rounded) \$164,500, with 68% confidence interval of \$151,500 to \$177,500. We can even use an 80% confidence interval, at \$144,500 to \$185,00. Even the 90% interval is \$136,500 to \$193,000, which is a substantial improvement over the 90% interval predicted from the regression.

What happened was that, with such a small sample, the cost of losing 2 degrees of freedom, rather than just 1, as with the mean, was higher than the benefit of breaking the indication into a constant and a coefficient. Also, the fact that subject rating was 2.2 compared with 3.5 mean of the sales, further widened the confidence interval by 11% on each end. I like the approach; the only problem is that this small a sample has to be handled like dynamite. As for the procedure, I especially like the ability to combine the objective data with subjective, intuitive parts of our abilities; that's why I'm evangelizing for inclusion of Bayesian analysis as one of the appraiser's tools.

By the way, in regard to your comments about some of the traditional Institutionalized dogma: A lot of guys are just scared to death of a mean, since they've been taught the last 40 years that

averages were even unethical; that, since we're looking for the event that occurs most often, the mode is our baby. And virtually everybody believes that! I wonder if our instructors and course authors really don't realize that a mode, by definition, has no dispersion, so you can make no inference whatever about the range of error. (Of course, they're scared of that word too, confusing it with "mistake.") So that a modal estimate can be ^{appropriate} ~~correct~~ only when a given figure is either right or wrong, which means it isn't really applicable to any continuous distribution. And that's what any calculated result is.

Ford or Chev
male or fema
1BR or 2BR

A somewhat minor point: You mention, P. 117, usefulness of regression if only ^{for} revealing patterns. Hear hear! I've often said I learned more about relations among real estate value factors in my first couple of weeks of obsessed running of any and every kind of regression, back in 1969, than I had in all the years before. Just yesterday, frinstance, I ran a regression on 15 land sales which won't go in the appraisal at all, just testing relationship between industrial land prices and nearness to Oxmoor Road, for my own edification. And last week, one, again not going in the report, but testing my figure for time adjustments. This educational aspect of regression use is, I think, one of its most valuable attributes.

Back to mean vs. mode (told you I was unorganized): I didn't mean it's okay to take the mean of a cost approach indication, inc approach, & sale comparison approach indication, for instance; meant mean of same items and equal weight. If you want to "give more consideration" to one adjusted price or rental etc than another, why on earth not weight it to start with? This, I think, is one reason many appraisers don't want to commit themselves to, for example, the mean of adjusted value indications; they want to be free to run it up or down to the value they arrived at prior to beginning the appraisal process.

Page 120: The sq ft prices divided by the quality scores will again give a tighter confidence interval than the regression,

with mean of 16.11, std dev of 1.51 or 9%, std error of .57, or 4%. This compares with std error of 11% for the regression. Adjusted r^2 for the regression is .82.

Page 122: Price sq.ft./score still is better: mean of 4.41, std dev of .92 or 21%, std error of .38, or 9%, compared with std error of 15% for the regression. Note that the adjusted r^2 for the regression is .86. Even though the r^2 increased, as compared with the preceding regression with 7 sales, the standard error is worse, widening the confidence interval. This again indicates the value of even one additional sale.

Since you don't give a rating for a specific subject under these two new rating systems, we can't do a std error of forecast, but the same principle as before would apply: if the subject is substantially away from the mean of the data, it expands the confidence interval even more.

By the way, r^2 can also be misleading in the other direction as well: Example: when you use price per sq.ft., conversion from raw price has already accounted for a good part of the variance in price, so r^2 wouldn't be as high as we would generally expect. As a somewhat extreme example, I did a regression once on some 50 houses, using price per sq.ft. as the dependent variable. r^2 was something like 4½%. Bad equation? Not on your tintype! It just happend that size accounted for nearly 90% of all price variance in that neighborhood.

In fact, in your first regression, if we run size vs price alone, we see that square footage alone accounts for 70% of price variation, so any other regression accounts for remaining variance in price! (Again emphasizing that r^2 is far from the whole story, though, the standard error is 55%.) This, plus possible variation of subject from the mean, is why

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GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

July 7, 1978

Professor James A. Graaskamp
202 A Breese Terrace
Madison, Wisconsin 53705

Re: The Appraisal of 25 N. Pinckney

Dear Guru Jim:

In regard to my letter of 6/22/78, concerning
the regressions in this report:

Fooling around with some distributions later, I
got to thinking I might be wrong in using the
standard error for a confidence interval for
predicting from the mean. Then I recalled that
I did a considerable amount of checking on
this some time ago, when I did a value estimate
of a total group of 222 properties, using the
mean of a large sample of assessment ratios.

In checking some 20+ statistics textbooks, I
didn't find one word distinguishing the handling
of predicting of the true population mean from
predicting of the next random observation, which
is what we're really doing in making a value estimate.

At that time I concluded that the std error was
correct for my particular problem, since the subject
group was as large as the sample--but that as we
reduced the size of the group of which we we postulating
the true mean, we should reduce it by the sq.rt. of
n, with the extreme being that when we were predicting
the value of the next single observation, the standard
deviation would be the proper measure for the confidence

interval. The head of the Bio-Statistics at UAB here agreed that this would be correct.

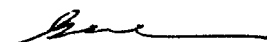
Even so, I'm not absolutely sure, since it would also sound logical that we might apply the standard error of forecast formula, which would place the error figure in between the standard error & standard deviation. One reason I wonder about this is that the std dev looks like it might overstate the error range, since it implicitly assumes we know nothing about our subject when, for instance in the present case we have the quality rating which we also know is somewhat away from the mean of the sample, and should be adjusted in some way for this. The standard error of forecast looks like a possibly reasonably solution, but I may be wrong--it may be correct just to stick with the std deviation.

Byrl Boyce or Greg Morton might have had more experience crunching this sort of material than I have, and might have an opinion a little firmer than mine.

In any case, supposing we ride with the std dev, the mean of the price sq.ft./quality rating would still be a better predictor for the first and second regression, but not for the third possibly, depending on the quality rating for subject which could again make the std err of forecast larger than the std dev of the mean, in percentage terms.

I realize the std err of forecast was devised specifically for regression analyses, but I don't see any factor in it that wouldn't apply (apparently) to a prediction from a mean also. I'd be interested to know what you conclude about this intriguing problem.

Kindest regards,



Gene Dilmore

University of Wisconsin



Madison

School of Business

1155 Observatory Drive
Madison, Wisconsin 53706

Graduate School of Business

July 10, 1978

Rec'd from Dilmore 5/26/91

Gene Dilmore
Realty Researchers
586 Shades Crest Road
Birmingham, Alabama 35226

Dear Gene:

Greatly appreciated your wonderful letter of June 22. Wonderful combination of good humor and common sense. I agree with your statistical comments and would like to add a one page insert with your comments edited and properly credited.

Bob Ford is here for EDUCARE and very much agrees with my methodology and your statistics on the use of the mean.

Is your book on real estate counseling from Lexington Press available yet? Would like to reference it heavily in my rewrite of the SREA Feasibility Guide Book I am finishing this summer.

Please give me your comments on the attached proposed insert sheet.

With great appreciation,

James A. Graaskamp
Chairman, Real Estate & Urban Land Economics

JAG/db

P.S. Since this letter was dictated, I have been to Toronto and Sun Valley, Idaho and to a major trial for Xerox. Your second note arrived and I have put your questions to my professor friends in statistics. I am excited about your mean dollar per point concept. How about you and I co-authoring an article using the 25 N. Pinckney tables as an example with a logic something like this:

1. Rationale of regression to find best space time unit for comparison such as square foot of first floor, square foot of total building versus front foot.
2. Point system to score key factors in property.
3. Weighting system to provide a common interval for basic statistical treatment.
4. Linear regression and resulting standard error estimates.

over

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GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

August 9, 1978

Professor James A. Graaskamp
Chairman, Real Estate & Urban Land Economics
School of Business
University of Wisconsin
1155 Observatory Drive
Madison, Wisconsin 53706

Dear Dr. Jim:

Thanks for your letter of 7/10/78.

The article idea sounds fine to me.

In regard to my book, I can see you're not keeping up with the publishing industry. The new contracts specify that no book will be published until the author has served a minimum of three months, and my indictments haven't even come through yet. Actually, I've had a lot of delays in getting any opportunity to work on it, and when I do, each chapter seems to keep growing. At this point, I have chapters completed on: Probability, Bayesian Analysis, PERT, Linear Programming, and Regression Analysis. This, so far, amounts to about 55,000 words. I'm ready to start on my next chapter, which is on after tax cash flow, and rate of return analysis, with some effort to combine with probability concepts.

Considering that this chapter is going to cumulate to a pretty good total, I'm seriously considering dropping several other chapters which I had originally intended to do, and writing an opening and closing chapter, and wrapping the thing up. After all, the Bayesian chapter, the Linear Programming chapter, and the PERT chapter, and even parts of the Probability chapter will all cover subject matter which is totally uncovered in any of the appraisal literature at present, so I'm thinking that it makes most sense to finish up the cash flow/rate of return chapter, and go ahead and loose the damn thing on an unsuspecting public, possibly with a "SOON TO BE A MAJOR MOTION PICTURE" subtitle.

Kindest regards,

A handwritten signature in cursive script, appearing to read 'Gene'.

Gene Dilmore

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GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

October 3, 1981

Professor James A. Graaskamp, CRE, SREA
School of Business
University of Wisconsin
1155 Observatory Drive
Madison, Wisconsin 53706

Re: Updating/Expanding THE NEW APPROACH
TO REAL ESTATE APPRAISING

Dear James the First:

Mr. Paul Psilos of Dryden tells me that you might be interested in conniving on an expansion and updating of THE NEW APPROACH.

There's nobody I'd rather see do this. The reason for my delay in writing you was that I was waiting for copies of my new diatribe, QUANTITATIVE TECHNIQUES IN REAL ESTATE COUNSELING, to arrive, one of which is enclosed.

It seemed to me that one major problem would be to add more recent thinking, expand some rather sparse sections (& correct a few), but to avoid too much overlapping with QUANTITATIVE STUFF. For instance, if I were trying to re-do the regression section in NEW, I'd have a hard time trying to keep from just writing Chapter 5 of QUANT. There may well be a middle ground, though, in expanding the material in NEW but keeping it nearer to the entry level than QUANT. Some of the stuff would be a good background, too, for working in the ideas developed in your courses, as reflected in the State Street report.

The Market Analysis part (Ch. V) really just got started good, and could stand plenty of expansion; same for Ch. XVII, Highest & Best, and XVIII, Feasibility Studies. I really wasn't trying to write a textbook at the time,

just to indicates to pros on the run, some directions of current thinking. (In fact, my original title was SOME NEW APPROACHES etc., a little more modest than Prentice-Hall's.)

In regard to QUANT, I think you'll find the Bayesian chapter (Ch 2) interesting, also the part of Chapter 6 analyzing a neighborhood shopping center to death (204-232), taking the analysis on past the usual stopping point, rate of return. I sort of beat Bayes over the head with the mechanics of working out things that the computer would do in practice, but as you know, I have this phobia about people punching things into a computer without knowing all the built-in assumptions of the program.

(A couple computer types are coming by next week, to discuss putting together & marketing a package of programs which would sort of follow QUANT, doing the things mentioned there, plus a few general utility r.e. programs (data storage etc).)

As I told Mr. Psilos, I'd have a real time problem about trying to work on this type of update myself, but if you'd find it feasible, it sounds terrific. Lemme know your thinking!

Kindest regards,



Gene Dillmore

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GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

*Red from
Dilmore
3/26/91*

December 3, 1981

Professor James A. Graaskamp
Chairman, Real Estate & Urban Land Economics
School of Business
University of Wisconsin
1155 Observatory Drive
Madison, WI 53706

Re: Summitry, Graaskamp style

Dear James the Only:

In regard to your suggestion of meeting on the 10th
and 11th of January:

Whatever.

Kindest regards,

Gene Dilmore

University of Wisconsin



Madison

School of Business

1155 Observatory Drive
Madison, Wisconsin 53706

Graduate School of Business

November 24, 1981

Gene Dilmore
Realty Researchers
586 Shades Crest Road
Birmingham, Alabama 35226

Dear Gene:

Scheduling my January break, I would like to fly up to Memphis on Saturday, January 9, so that I could meet with you Sunday afternoon, the 10th, and Monday morning, the 11th, in regard to our book venture. On the afternoon of the 11th, I have to fly to Newark, New Jersey for a seminar on the 12th.

If these dates are an imposition on your family schedule let me know and I might be able to arrive on the 8th, but that's my only wiggle room.

Best regards,

James A. Graaskamp
Chairman, Real Estate & Urban Land Economics

JAG/db

*Discussed with
12-1-81*

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GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

December 3, 1981

Professor James A. Graaskamp
Chairman, Real Estate & Urban Land Economics
School of Business
University of Wisconsin
1155 Observatory Drive
Madison, WI 53706

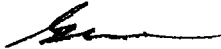
Re: Summitry, Graaskamp style

Dear James the Only:

In regard to your suggestion of meeting on the 10th
and 11th of January:

Whatever.

Kindest regards,



Gene Dilmore

Jan. 9 12:50 PM
Delta 620
leave mon. 9:30 AM

Helmore

University of Wisconsin Madison

School of Business
1155 Observatory Drive
Madison, Wisconsin 53706

9,021.81

Graduate School of Business

January 18, 1982

Gene Dilmore
Realty Researchers
Realty Researchers Building
586 Shades Crest Road
Birmingham, AL 35226

Dear Gene:

Greatly appreciate your willingness to meet me in Atlanta on Sunday morning, January 24 at the Regency Hyatt in Atlanta. If all goes well I should be there by 2 p.m. (Eastern 777 arrive at Atlanta 12:57 p.m.) Saturday afternoon if Saturday afternoon is more convenient for you.

Enclosed is my initial perception of the textbook outline. The Roman numerals are sections and the letters are short chapters, many of which parallel the chapter contents of your basic NEW APPROACH TO REAL ESTATE APPRAISING revise, restate of whatever as you will - no great pride of authorship.

Also enclosed because of your general interest and because I took your name in vain is correspondence representing an ongoing dialog with Don Dorchester about an appraisal theory colloquium and I will welcome your suggestions and comments.

Will call midweek to see whether you prefer Saturday or Sunday.

Best regards,


James Graaskamp

JG:hb

Enc.

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GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

October 6, 1982

Professor James A. Graaskamp
Chairman, Real Estate & Urban Land Economics
School of Business
University of Wisconsin
1155 Observatory Drive
Madison, Wisconsin 53706

Dear Jim:

In regard to our proposed connivance on foisting
a coffee-table ornament on the public, under the
guise of a book on real estate appraisal and analysis:

Seems like to get under way, we really need to get
together a few hours, and hash over just what we
need to do, most likely with you assigning me my
duties, and me forthwith screwing them up, to keep
you occupied in straightening things out.

I've finally got a letter-quality printer, so I'm
getting a good bit of practice writing stuff with
Wordstar, which should ease the chore considerably
for me.

like
Looks the the best schedule for me is: I could dash
up to Madison, arriving most any day at 1:42 PM, and
leave the next AM early. So if you could arrange a
couple hours, we could get together and maybe get
started on who does what to who and who gets the
two dollars.

Kindest regards,


Gene Dilmore

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GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

5/10/83

Dear James:

Couple three notes:

Well, sir, I finely got my little Teleram 3000-2, on which I'm tapping this at nite at home. It could hold 50 or 60 pages of documents. So now I've no longer got that excuse for not working on the book; I can type on it at home, and load it into the Altos at the office later. I'm finally under way on Chapter 3, got 30 or so pages (typed pages).

A point about points: I notice the demonstration reports, & the Cardinal report use scales for relative quality ratings, from 1 to 5. Seems to me we got here the same problem we encounter in regressions, when using ratings, such as location or construction quality, etc.: If we rate Poor as 1, Fair as 2, Average as 3, Good as 4, and Excellent as 5, then we gotta problem. Our later calculations are gonna turn these qualitative judgments into specific numbers, and (this happens in a lot of regression runs) suddenly we've unintentionally said that, other things being equal, a property we rated Good is in effect worth 4 times as much in dollars as the one rated Poor.

What I'm getting at, is I think we need to start the base of a rating higher, and maybe close in the ends a little, since we're not really just assigning a property to Category 3, but multiplying some dollars by 3.

I had some interesting problems along that line, doing some regressions on rental properties in Panama year before last, trying to separate and quantify the differing weights (in comparing rent comps) for construction quality versus location desirability.

I'm enclosing a couple instances in recent reports; you can see the numbering scale I arrived at for these particular ratings. (I did a good bit of trial & error, using a somewhat esoteric Randomized Rightness Convergence Algorithm which I employ extensively on deep-type problems. The program goes:

```
10 TRY SOMETHING
20 TRY SOMETHING ELSE
30 GOTO 10
```

It would seem different items being rated might justify different proportionate ratings--I'm not sure. Some of your bright mathematically-inclined students might fruitfully try some experimenting on different ratings; say on actual sale data, to see what patterns fit the data best. I've got a little suspicion, though, that something in about these proportions, when applied to Fair to Excellent subjective ratings, just might be fairly good-fitting over a pretty broad range of property types.

Another interesting area of inquiry would be: what are the appropriate factors to be rated, for different property types? (Assuming we are concerned with qualitative items, not quantitative items like time, size, or financing terms.) And: the weights! for the factors. Enough unknowns there, to justify a nice grant for testing a pile of comps against a set of known sale prices.

A problem with all this Ratcliff-Graaskamp-Dilmore shit is that, when you really do it right, you turn a \$500 appraisal assignment into half a career. Of course, we've been saying lo these many years, that each appraisal should be a serious, comprehensive research project, but I expect real resistance based on the fact that appraisers will say clients don't want to pay for that much work. I enclosed a couple of reports on the same general type of property--office bldgs--and a restaurant, to point out one slightly mitigating factor in "our" way: Using word processing, you can do the elaborate calculations necessary for one property, then when the next assignment comes in do as I did here, just load in the last office appraisal, type on top of the descriptive material, and fill in the new numbers on top of the old ones. Same for the format for the approach, with a different set of comps. This way, typing a good-sized report following a similar general format is about an hour and a half of work. (I mean typing it directly on the computer, from notes & calculations only, skipping the dictate, review and retype process entirely.)

Another mitigating factor: When you can use the same batch of sales a second time, such as when we had another small office assignment, all of the quality-rating sections remain exactly the same; only the subject rating part changes.

And let's face it, James, you and I can use all the mitigation we can get.

Note re the reports: sending the whole report, just for background of the comparison approach; these are transitional, keeping pretty traditional format for staid clientele. Note that I'm going ahead and appraising the land for each comp as of time of sale--considering it a quantitative matter--to remove it from the quality point rating process. That's a lot more work than most appraisers will want to do, so we need to persuade them (or try) that when you're talking about even a half megabuck's worth of property, a serious research project (and a serious fee) is justified.

(After talking with you:)

I'm just going ahead plagiarizing you and cannibalizing my own stuff; I believe this may be an opportunity to make a tentatively temporary provisional definitive statement on a few facets of the valuation process. I may dig some stuff out of my last book too; Heath seems to be keeping its publication a pretty good secret, so nobody will have read it anyway. We've still got a way to go in updating: part of my chapter in the 8th Ed of the AIREA text got censored out, because I scared somebody, talking about means and standard deviations. ("Appraisers don't use averages.")

By the way (ta-da!), I sold the García Márquez article to the Journal of Modern Literature (Temple U.)

Kindest regards,



Gene Dilmore

MEMORANDUM

TO: Gene Dilmore, the Birmingham Brahmin of
Non-Violent Appraisal Theology.

FROM: James A. Graaskamp, the Guru of Appraisal
Disinformation

RE: Multiple Digression

Reread your final final copy of the Boston treatise as amended by this morning's mail. Once again it was a delight and an insight. Like the Indian sending smoke signals in Los Alamos the day of the first A-bomb test, I wish I'd said that. Will use it as the lead article in our graduate appraisal course this fall.

That brings me to subject #2. We should try to spend a couple of days together condensing our textbook idea into something manageable. At the same time, I would love to have you teach our appraisal course for a session or two. What are the chances of having you visit Madison the week of September 23? If you came Monday afternoon, the 24th, we could have Monday evening and Tuesday to work on the book, and on Wednesday you could meet with my graduate students in Contemporary Appraisal and the graduate students in our IBM PC course to show them how you do a market comparison appraisal. Wednesday night, the 26th, would be available for the book, and could let you escape to Birmingham on Thursday, the 27th. So much for the bad news. The good news is that we have some money in the Alumni fund with which to pay your travel expenses and a minor honorarium, say \$500. Moreover, Jerry Dasso will be here as a visiting professor for the semester and he would like you to kibitz in his undergraduate appraisal class.

Will call you in a couple of days after you have had time to organize your excuses - but this timing protocol gives me the last overwhelming rebuttal and the right to call our publisher and tell him where you are.

"I hear the voices," Graaskamp

24 & 26
SNEA

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REALTY RESEARCHERS BUILDING
586 SHADES CREST ROAD
BIRMINGHAM, ALABAMA 35226
(205) 823-5479

GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

October 1, 1984

Professor James A. Graaskamp
School of Business
University of Wisconsin
1155 Observatory Drive
Madison, WI 53706

Re: Collected Week-end Miscellanies

Dear Jim, Jean & Mike:

Oops--I forgot to give you back Michelle's jacket, for which much thanks.

Enclosed too, is my Size Adjustment program, in Microsoft BASIC, with a copy of the output. The lowest coeff of variation indicates the best fit.

Also a copy of my rate partitioning program.

& a copy of the just-received Society's preliminary version of the Marketability & Marketability Analysis Short Course. I hereby dissociate myself from any way anything is said in it--a quick look indicates that every slight indication that a specific individual human being wrote it has been pretty effectively removed, so we have basically your standard government bureaucratese version. Also, some incredible changes which simply made statements incorrect or even the exact opposite of what I said, misquotes, etc., etc. Anyway, I thought the basic substance of it may be hidden in there somewhere. Gary had run copies of this version before I noticed how fouled up it was, and we didn't have time to make copies of the original "uncorrected" version.

Jean, the discussion of sample size is in Section VI, Pages 16--19.

A brief discussion of the standard error of the forecast is in The Little Yellow Book, Pages 125--126, with example. For multiple, you extend the formula, for each variable.

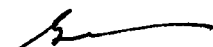
Jim, I think I might try an alternative BASIC version of the quality point program, and maybe attempt some sort of weight-selecting routine. Number of points seems to be something you would go ahead and assign judgmentally; it's the weights for each attribute that you aren't "sure" of. Maybe semi-random selection, with constraints--say you start with your assigned most likely weights of .2, .5, .3.

The program should try other weights, but between .1 and .3, between .4 and .6, and between .2 and .4 only (not a full range of randomness, since you're not totally uncertain of the proper weights); then come back and make them total 1.0; then apply them to each sale and get either std dev, or average residual; then sort for lowest to select the best fit. This would have to be rather tricky, since you'd also want the "random" selections of weights to be in units of .05, and avoid spurious accuracy of .374 weights.

An alternative would be something along the line of my size adjustment program--test a pre-determined set of alternative combinations. This would be faster, but even so, would require starting with the appraiser's inputted preliminary weights, and calculating the alternative combinations--so much above, below each given weight, etc.

I'm also enclosing my plane ticket--the faint figure is \$585.00; and airport parking, \$11.75.

Kindest regards,



Gene

4610 University Avenue, Suite 105, Madison, Wisconsin 53705, 608-233-6400

*Red
Gene Dilmore
3/26/91*



November 20, 1984

James A. Graaskamp, Ph.D., S.R.E.A., C.R.E.

Jean B. Davis, M.S.

Mr. Gene Dilmore
Realty Researchers
586 Shades Crest Road
Birmingham, AL 35226

Dear Mr. Dilmore:

Enclosed are two Point Score valuations of farmland in Kenosha County, Wisconsin. One section of the subject farm had been zoned Industrial--the portion with rail frontage. The remainder continued with Agricultural zoning but was just across the street from the City of Kenosha.

The factors used for the industrial portion were slightly different to reflect the potential use of that parcel as opposed to the larger parcel which might be considered for both commercial/retail and residential uses.

These examples may be appropriate for your presentation. I will pass along your message to Jim about your BASIC language Point Score program. I am glad that someone is finding the time to put in a routine to solve for optimal factor weightings. One of the major criticisms of the Point Score approach has been that the weights are not often arrived at in any organized fashion.

As I mentioned, Craig Hungerford of our office had embarked on a linear programming approach. After I spoke with you I asked him about his progress only to find that he had come to the same conclusion as you had. We will be interested in hearing about your optimization routine.

If you need any more information about the enclosed Point Score "runs", please feel free to call.

Sincerely yours,

Fraser B. Gurd

Fraser B. Gurd

FBG/jc

Enclosures

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GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

1/5/85

FROM: BIRMINGHAM CENTER OF SUBVERSIVE STUDIES AND
APPRAISAL GUERILLA INDOCTRINATION
(A NON-PROFIT, LESS-THAN-EQUAL OPPORTUNITY INSTITUTION)

TO: JAG/JBD CONSORTIUM FOR CORPORATE/ACADEMIC/INSTITUTIONAL
EVANGELISM (J. A. "I AM THE WAY" G., C.E.O.)

ABOUT: ENCLOSURES

Gentlefolk:

The mouse has labored; the resulting mountain is enclosed.

Here is a listing of the amazing QP; it takes your weights, it juggles them, it squeezes them, it caresses them, it tickles them, bounces them and gives them back to you disdainfully, with fully-justified arrogance, improved over the pitiful efforts of mere flesh-and-blood appraisers.

QP, the sentient program, will run several times as fast if compiled. If you compile it, watch the lines mentioned in the REMARKS at the top. I left the original bubble sort in, but have by-passed it with a butterfly sort, which should be much faster.

I had thought I would hear from the Society about the 301 proposal, in which they were to furnish me an IBM PC, whereupon I could put it on there and just send you the disk, but I haven't heard from them.

A couple of outputs, too: These are the Industrial Land and the Large Size Non-Agricultural Land appraisals that Fraser sent me. You'll notice that QP tightens up the dispersion every time. The one with 6 attributes illustrates the fact that we mere humans couldn't do a complete analysis of the proper weights, since there were 15,625 possible combinations. The number is 5 raised to the power of the number of attributes.

There's a little bug there in regard to printing the original weight of the 6th attribute. I'll look for it, but meanwhile, the calculations are correct anyway.

Sorry about the messy edge on one printout; that was just me getting the paper in crooked.

Besides compiling, QP will speed up some also with integers for all counters. I couldn't use a "Define as integer" since there are variables that start with the same letter which need to remain real. If your compiler is like the Microsoft one, it won't accept the dynamic dimensioning, so be sure to change the lines I've noted. All the I's and J's and the counters in 1390--1780 can be made integers.

Enclosing also, an output from my regression program. I was figuring on selling it, since as far as I know, it's the only program available that gives the standard error of forecast. Some other programs give confidence intervals; the difference between them and mine is that mine are correct. You might check me out on that; I think you'll get different answers with any other MRA program. Resuming the second sentence: ,but I'm thinking now of including it with the programs we furnish with THE BOOK, since it is pertinent to the ~~crap~~ material we'll be writing. Thought I might contribute my component discounting program (would "component capitalization" communicate more easily??) too, since it would fit into one of my chapters nicely. Also the size adjustment program.

The MRA program also does a residual analysis, and gives the Durbin-Watson statistic. You might look it over, and if either of you think of any other goodie that would be useful in the output, let me know and I'll see if I can insert it. By the way, you can put any number of confidence intervals, at any level, up to 10 of them. It can be compiled too, since the data files are on disk, not in data and read statements. The t values for the confidence intervals are calculated, not read from a table, so they are not interpolations or approximations.

As you can see, about all of my work so far on THE BOOK has been programming, but I still feel like I'm getting somewhere.

Would write more, but night time has come, and I want to go home. (Hmm--I might set that to a Calypso beat & have a hit on my hands.)

Have a nice year, unless you've made other plans.

A handwritten signature in cursive script, appearing to read "Gene".

Gene

Dilmore

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GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

April 1, 1985 (Show a little respect: It's MY DAY!)

Professor James A. Graaskamp
Chairman, Real Estate & Urban Land Economics
The School of Business
University of Wisconsin
1155 Observatory Drive
Madison, WI 53706

Jim--

I'm not sure about the difference between "1-3-5" and "15-20-26," but I think it may well be a case where "Good" really is 5 times as valuable as "Poor" in the particular market. Maybe my 15-20-26 applies more to types of property a little less elastic. Say we had office bldgs in the \$16 rent class which we called excellent, \$12 rent class which we called good, and \$9.00 rent class which we called average, (which pretty well reflects our market, generally), then we have a perfect fit with 15-20-26.

On the other hand, ^{with 1-3-5} if the "Excellent" offices fell generally in the \$10 range, Ave in the \$6 range it would seem like the Poor ought to be in the \$2 range, doesn't it? (Try try again dept): So maybe we also have the factor of what the individual person has in mind by saying 1,3,5, or whatever they may be called. Also, when you are pricing the subject by exactly the same yardstick, a great deal of difference would be mitigated right there.

There is apparently a typo in Exhibit 2: Woolworth is rated a 3 as a comp, and 1 as subject. If the rating as a comp is correct, then the figure for subject would be 2.80, rather than 2.30.

This makes your value figure \$655,200 (central tendency figure) rather than \$540,000, and makes my version \$664,900 (rating 15.90 rather than 13.90). So we're both closer to the sale price of \$662,500. I don't think I would consider the difference between the two to be significant.

Say! I didn't know you could access a BASIC program from 1-2-3. I will sure be interested to see how they can be fitted together. I hope before the end of this month to be in the process of getting an IBM, so we'll be more compatible (an end always to be desired).

I'm still at the program stage on my chapters. I'm enclosing the output of a program under construction, called "Reviewer" which uses a few tests for internal consistency in the appraisal. It uses a point which I've never seen a lawyer catch: They always question witnesses about each approach to value separately, as if each one was an isolated valuation, without tying the ratios used, to the final value estimate. For example, in the market comparison approach an appraiser may have used a GAM of 6, but the final value figure may really reflect a GAM of 7. So he should be fighting the 7, rather than the 6. (I won't tell them if you won't.) So Reviewer is based entirely on the final value figure. And it checks ratios that are implied, but not overtly stated. This output, by the way, uses input right out of a real appraisal by a real (perhaps) local MAI. So I'll certainly change the numbers before using it in the chapter. The implied rate of growth in net income is something that probably 90% (note that I'm always conservative) of appraisers never check, in their cash flow projections. A lot of them actually think well gee whiz, if expenses are increasing 6% and gross income is increasing 6% well shucks they balance out, so what, me worry?

ANY SUGGESTIONS
AS TO ANY MORE
RATIOS (ORIGINAL
HIDDEN ONES)
TO ADD, WILL
BE APPRECIATED

By the way, something we both should do is insert one line after the calculation of the final standard deviation, giving the coefficient of variation, as the absolute amounts can be misleading when comparing different unit ratings.

Kindest regards,



Gene Dilmore

P.S.: Returning your book. Late fine will be delivered by Wells Fargo.

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GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

4/20/85

FROM: Center for Liberation Theology Studies for
Appraiser Type Fokes

TO: North Pole Halfway House for Born Again Jamesites

Couple three thoughts:

I finely went ahead and got an IBM PC!! So now we can swap programs. I should get it set up and working Monday. I've still got to turn in a final proposal on doing 301, which will assume that the students will be using IBM's for the course. With the slowness of organization type decisionmaking, I figured I better get started, and not wait to be sure I'd need the IBM for 301.

I gave a programmer a listing of my rather nice regression program, and he promised to give me a copy of the IBM version when he gets it working. He needed it for part of a system for one of his clients. So that's one that, I hope, won't have to be keyed in like QP.

I'll try also, to get my rate partitioning program transferred.

About QP: It just occurred to me that I believe you use a wide-carriage printer. Since most of the people reading A Temporary Approach to Etc. and running our programs will prolly have 80 column printers (me too), it would be best if the student combining QP and your 1-2-3 point rating approach into one BASIC program either kept it to standard width (with the POS command), or else make optional IF's so it could be run on either size.

For the occasional problem with a substantial number of property attributes, an alternative approach for the QP approach would be the one I considered to start with: Make random dips into the numbers and keep dipping til you come up with a set that adds to 100%; and set a number for these that you feel safe with, say 200-300 etc. With 2 or 3 hundred working combinations, there should be a pretty good probability that the best of these (lowest std dev) would either be the real best combination, or close enough that it wouldn't matter much. Of course, for a really important job, you could afford to just leave it running all night searching every combination. I don't know if I'll ever find the time to try that. (If you had 10 attributes, you would have over 9,765,000 possible combinations, of which about 1,074,000 would add to a hundred, so this would take QP a while. But I would think that a random sample of 3 or 400 hundred per cent combinations would be a pretty good sample and land near enough to the optimum not to justify the longer route.)

An hour! an hour! my kingdom for an hour!

I think I know what has been bothering me about the Fuzzy approach: As long as I feel good about attributes and their ratings and their weights, I'd rather stick with specific assigned numbers, as in QP etc. I believe where Fuzzy methods would be appropriate might be this: when the dominance of one attribute over another might NOT be of the same magnitude for Attribute A in respect of Comp #1 as it is for that attribute in respect of Comp #2 as compared with subject. This would arise in an occasional property with a set of, well, Fuzzy attributes. Transportation linkages are slightly more important in Comp #1 as compared with subject, but of extreme importance in Comp #2 in comparison with subject. What bothers me is that this makes sense to me: there must be something wrong with it.

Time to go home and get my Z's. Good night.



Gene

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GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

6/5/87

Jim Graaskamp
Dan Swango

Dear fellow kooks:

I thought you might be interested in this little article, since it has direct bearing on some comments in my notorious essay on the Three Approaches, delivered at the meeting of the Society of Renegade Appraisers and Non-MAI's and Assorted Disreputable Members of the One Approach Crowd.

Both Hawking and Gell-Mann have evidently finally figured out something I knew all the time, but couldn't explain how I got there, since I didn't have the math to prove it with equations. Apparently I was a lone voice in the wilderness, with no one else disagreeing.

Any impulse to gloat, though, is overwhelmed by awe-struck admiration for the incredible intellectual courage it must have taken Hawking, to publicly announce that after 25 years of work (by what is probably the finest mind on earth) he had concluded he was wrong, and promptly resume work on the problem in another direction. Evidently there are still a few heroes around!

Kindest,


Gene

NOTE: Article referenced by Gene Dilmore entitled "In the Beginning was Quantum Mechanics" was deleted because publisher could not be located to grant permission for its use. JBD



University of Wisconsin-Madison

Graduate School of Business

1155 Observatory Drive
Madison, WI 53706
608/262-0391

March 4, 1988

Gene Dilmore
Realty Researchers
Realty Researchers Building
586 Shades Crest Road
Birmingham, AL 35226

Hey Dilmore:

You have some wishy-washy friends in Chicago. They offered a konkrete kimona in the Karibbean as a sabbatical to encourage publication. Then they heard that I had testified in Congress for the benefit of Congressman Barnard to the effect that the Institute, the Society, and the other appraisal families lack the guts, the money, or the understanding of appraisal to establish standards and state certification. In fact, I suggested that the banks, the savings and loans, and the appraisers like the status quo because they can rob the banks blind without using a shot gun. Well, your friends from Chicago knew a mean S.O.B. when they heard one and retreated to Lake Geneva.

By now you should have received your first extortion payment in the form of a 1-2-3 waiting program harnessed to GOALS SOLUTION. Enclosed with this letter is my only copy of a "scientific" cash flow model. These Chinese people think they have discovered a natural law of valuation - to use their phrase, "laws are to be discovered, not passed." They did not indicate if laws could be overlooked, however. Anyway, this program does not require an assumption about resale price since it projects an accounting model to infinity and assumes the present value of these returns at any point as the resale price of the property. In essence, the valuation model has two unknowns, the purchase price and the resale price. The algorithm comes from nuclear physics so I assume you understand those things better than I do. Worldwide Valuation would like to share this with influential appraisers, and I explained to them that you are the one that influenced me and had taught Kinnard everything he knows. So try the model and tell me what you think, aside from the fact that the format is lousy. You may want to call Hugh Ching. He is a very forceful man on a mission, but I have some doubts as to whether it is the right mission. Send these materials from Worldwide Valuation back when you're done.

I will send along a rewrite on chapter one and an outline of my income approach chapter before I leave for Seattle on the 13th.

Thanks for relocating Big Julie, the heart breaker from Chicago, for me. I knew her many years ago when I was young and it is good to keep Jean a little off balance.

Big Jim

CORRESPONDENCE WITH PUBLISHERS



THE DRYDEN PRESS

*Susan - send this guy
copy of outline + copy of
Chapter 1*

I send Dilmore

one ea. Birm. Ala.

SREA Dir.

September 23, 1981

Professor James Graaskamp
202A Breese Terrace
Madison, Wisconsin 53704

Dear Professor Graaskamp:

I am delighted that you would like to work with Gene Dilmore on a revision of his appraisal book for sale in the college textbook market. I phoned Gene just after speaking with you and he is very pleased as well.

Gene should be calling you within the week to discuss with you what changes should be made.

I will contact you after Gene calls me subsequent to your discussions, to make further arrangements.

Sincerely,

Paul Psilos
Developmental Editor for Real Estate, Business Law
and Insurance

A division of
Holt, Rinehart
and Winston
~~901 North Elm~~ 1 SALT CREEK LANE
Hinsdale
Illinois 60521



THE DRYDEN PRESS

November 11, 1981

Mr. Gene Dilmore
Realty Researchers
586 Shades Crest Road
Birmingham, Alabama 35226

Professor James Graaskamp
202A Breese Terrace
Madison, Wisconsin 53704

Dear Gene and Jim:

I am happy to hear that you have begun preliminary discussions regarding the contents of a textbook version of The New Approach to Real Estate Appraising, and that you plan to meet in January for further discussion.

Since we have not discussed compensation, and since a contract in an envelope is a rather cold-blooded explanation of things, I would like to tell you what we can offer you, and to discuss some issues regarding the text itself.

While it would be up to you to jointly decide how to divide royalties, we would like to offer you a contract with the standard college textbook royalty of 15% of net price on all copies sold. Any sales through book clubs, for which we should have a channel organized soon, would carry the standard 5% book club royalty.

The existing book is printed in a large trim size (8½" x 11") and in very large type using a lot of space "10 on 14" as they say in the production department. As a result, the 214 pages of the present book would equal roughly 214 pages of a standard size college textbook using only slightly less space between lines and the same type size. Since we would like a book with a maximum length of around 480 pages, you would have the option of adding about 350 typed double-space manuscript pages, should that many be necessary. (We would not be reluctant to publish a book of less than 480 pages, I should add.) Should new manuscript pages contain a great number of graphs, equations, or tables the total available new pages would be around 300.

Since even 300 new manuscript pages would in effect double the length of the existing book, I assume you will be discussing fewer than 300 new pages. However, should they be necessary, 300-350 pages would be the approximate limit for new material.

Regarding a schedule, there are two quite different options. Which you choose will depend on how much time you will have to give to this project. The first option would be to submit complete manuscript no later than

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Mr. Gene Dilmore
Professor James Graaskamp
Page 2

January 15, 1983. Since it takes approximately twelve months to produce a book, submitting the complete manuscript by January 15, 1983, would result in a book published January 15, 1984 (or slightly earlier) bearing a 1984 copyright.

The second option is much less attractive. Due to the exigencies of college publishing, a book that is published late in the second semester (i.e. after March 1) has a high likelihood of receiving less notice than it deserves because professors do not have it in their possession early enough to adopt it for the first semester of the next year; by second semester the book is often viewed retrospectively as something that was once an option but is no longer. A book at the level your book will be at by authors as noteworthy as you are is not as likely to be subject to this problem, though the advantages of publication in the November to January period are strong. Therefore, the (second) option of completing the manuscript by November of 1983 with late 1984 publication date and a 1985 copyright is open, though far less attractive to us - and I hope to you.

Please bear the issues of schedulings and length in mind in your discussions. I can supply any number of photocopies of the existing book which I assume will be cut and pasted for inclusion in the new manuscript or simply included as tearsheet where appropriate. Also, if the contract terms are agreeable to you, please let me know, and I will have contracts drawn up and sent to you. My phone numbers are 800/323-7437 and 312/920-2493.

Sincerely,



Paul Psilos
Senior Developmental Editor

PP/as



THE DRYDEN PRESS

March 4, 1982

Professor James Graaskamp
202A Breese Terrace
Madison, Wisconsin 53704

Mr. Gene Dilmore
Realty Researchers
586 Shades Crest Road
Birmingham, Alabama 35226

Jim and Gene:

I am enclosing the contract for your real estate appraisal textbook with Jim's copy of this letter. The contract is very straightforward with respect to particulars. It specifies that we will pay a royalty of 15% of net price on all copies sold (to be divided as per an agreement between yourselves as authors).

Please initial paragraphs 1, 3, 7, and 7b, and sign all copies at the bottom line, including your social security number. After Jim reads and signs he should forward them to Gene who should sign and return it to me by March 20, at which time it will go to New York for an infinity of signatures.

Paragraph 3 is of particular importance in that it makes provision for a peculiarly sticky issue in for-profit, college textbook publishing: permissions. Materials from Gene's book would not require permission, since he is now the holder of the copyright. Materials from Jim's book publications would also not require permissions if he holds the copyright. However, journal articles by either of you from which even short quotations are taken may require permissions from the journal. In most cases, the Society or the Institute grant permissions readily, whereas Lexington may charge for material from Gene's recent book. Some permissions procedures for real estate materials are peculiar in that the publisher of a book may not hold the copyright, as with Ballinger's production materials on which the Institute and the Society hold the copyright jointly.

In your discussions of what needs to be done to make the manuscript a successful college textbook which generates income for you and for us, you may want to consider how permissions (if any) will be handled and by whom. A permissions log as attached is a must if you decide to use journal or non-original material. If you wish, we can hire a person to secure permissions, but you should be aware that these become a charge-back against your royalty account as per paragraph 3 in the contract. If there are ten or less, please contact me, and I can perhaps be of assistance.

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Professor James Graaskamp
Mr. Gene Dilmore
Page 2

I am planning on a book of approximately 450 bound book pages maximum. Since this is ~~twice~~ the length of Gene's book and more, it should be regarded as an outside limit to be approached only if appraisal changes so radically that a dozen new techniques emerge and are proven valid over the next year. A book of about 385-390 pages would be more feasible, I suspect, both from the standpoint of limiting the scope to the major issues and usefulness as a textbook.

You should shoot for about 220 new manuscript pages in addition to Gene's 214 pages of existing manuscript. There is no need to retype Gene's material if it is not going to be significantly altered. Rather, two copies of the text should be taken out of their bindings and the tearsheet pasted to 8 $\frac{1}{2}$ x 11 bond paper. (Compositors can use only one-sided copy and charge exorbitant fees for setting from two sides). The pasting may seem redundant, but it is the only procedure I can provide. Additions of ten (10) or less words may be neatly printed or typed in the margin.

More extensive insertions should be treated thus: Mark the place on the manuscript where material is to be inserted "Insert A" (or B or C or however many you need) and indicate with an arrow where the inserted material should start. Do not draw lines over copy you want to preserve! Then on a separate sheet marked "Insert A to page 10-3," type materials that should be added in. Use as many inserts per page as are required. You may find that more than one for a given page is necessary.

Please number the manuscript by chapter and page Ch. 1-1, 1-2, 1-3, Ch.2-1, 2-2, 2-3 etc. This makes handling and checking much easier, and also provides a means of ensuring that the insert material stays where it belongs.

I think we have an excellent project here with significant sales potential. The decisive issue will be whether the language of the text can be kept at a level that students as well as Graaskamp and Dilmore can understand.

As for "pedagogy," you should consider a listing of key terms at the beginning of each chapter, questions and/or problems for homework assignments at the end of the chapters, and a list of selected readings, either by chapter or at the end of the book. Also, footnotes which elaborate on technical aspects of a given topic can provide a bridge between what you think should be included as opposed to what may be beyond the scope of the average person taking the course.

The need for an instructor's manual to accompany the text is not apparent to me, but I will do some research on this matter and see if one is required. Ironically, instructors who do not use Instructor's Manuals frequently ask whether they are available.

I hope you can get together soon to discuss precisely what needs to be done.

Professor James Graaskamp
Mr. Gene Dilmore
Page 3

Hopefully you will be able to limit the work so that we can set up a schedule that allows for timely publication early in 1984. I will be in touch fairly regularly over the next few months. If you have any questions, please call at 800-323-7437.

Best,

A handwritten signature in cursive script, appearing to read "Paul".

Paul Psilos
Senior Developmental Editor

PP/as
Enc.

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Chicago
Atlanta
Dallas
New York
Philadelphia
San Francisco
Montreal
Toronto
London
Sydney

Agreement made this 28th day of September 1982, between

James Graaskamp
2000 Bruce Terrace
Madison, Wisconsin 53704

Gene Dilmore
Quality Resources
505 Maple Crest Road
Birmingham, Alabama 35226

(herein, and if there is more than one author, then all of them collectively, sometimes called "author" and sometimes "he"), and THE DRYDEN PRESS, CBS Educational and Professional Publishing, a division of CBS INC., 383 Madison Avenue, New York, New York 10017 (herein called "Publisher").

- 1 Rights Granted** Author hereby grants and assigns to Publisher for the full term of copyright the exclusive right to publish and vend throughout the world the literary work provisionally entitled ~~XXXXXXXXXXXXXXXXXXXX~~
- (herein called the "Work"), together with the supplementary rights ~~XXXXXXXXXXXX~~ pertaining to the Work as provided in Paragraph 7 (c) below. The Work is to be a manuscript of about ~~XXXXXXXXXXXX~~ words, designed for a college course in ~~XXXXXXXXXXXX~~
- 2 Copyright** Author authorizes Publisher to copyright the Work in Publisher's name in the United States, and elsewhere as Publisher may elect, and to renew such copyrights to the extent permitted by law.
- 3 Delivery of Manuscript** Author will deliver to Publisher before ~~XXXXXXXXXX~~ June 1, 19~~83~~, three (3) complete and legible copies of the manuscript of the Work, in form and content satisfactory to Publisher. All necessary auxiliary materials (such as art work, photographs, test questions, instructors' manuals and the like as agreed in writing between Author and Publisher) and all permissions to use copyrighted materials will be delivered to Publisher on a schedule agreed to in writing between Author and Publisher. Time of delivery is of the essence. After acceptance, all agreed upon permission fees involved will be paid by Publisher as an advance against Author's royalties. Should Author fail to deliver the auxiliary materials or permissions, or both, as required hereunder, Publisher may, at its discretion, procure the same and charge the expense thereof to Author's royalty account. Author will retain a copy of the manuscript and auxiliary materials, read and correct all proofs, and be responsible for the timely preparation of the index.
- Author's Alterations** The expense of Author's alterations, exclusive of printer's errors, made in proof in excess of 10% of the cost of composition and expense of Author's art alterations in excess of 2½% of the cost of the art program for the book shall be chargeable to Author's royalty account.
- 4 Competition** Author will not publish or cause to be published any other work which would adversely affect the sale of the Work, without Publisher's prior written consent.
- 5 New Editions** Author agrees to prepare the manuscript for a new or revised edition of the Work when Publisher determines that a new or revised edition is desirable. Should Author then be deceased, or be unwilling or unable, or fail to prepare and deliver such manuscript within a reasonable time, Publisher may make such arrangements as it deems appropriate for the preparation of such manuscript. In such case, Publisher may compensate the reviser(s) either by a lump sum payment to be charged against any monies due Author hereunder or by assigning to the reviser(s) such portion of the monies due the Author hereunder as, in either case, Publisher shall determine is reasonable. When Author has not prepared a new edition for whatever reason, Publisher will compensate Author by payment of 50% of the royalty rate set forth in paragraph 7 on the first such revision, 25% of the royalty rate on the second revision and 0% (none) thereafter. Each such new or revised edition of the Work will be deemed to be covered by this Agreement to the same extent as if it were the original Work, except as the terms and conditions hereof are clearly inapplicable thereto.
- 6 Publication Of The Work** Publisher will publish the Work within a reasonable time after acceptance of the completed manuscript, at its own expense, in such style or styles and at such price or prices as it will consider most appropriate.
- Author's Copies** Publisher will furnish Author, free of charge, ten copies of the Work as published, and any additional copies desired by Author for personal use will be supplied at a discount of 50% from the price, without royalty to Author.
- 7 Royalty** Publisher will pay to Author compensation on the following basis:

(a) Regular U.S. Editions

~~15% of net~~

(To be divided between authors Dilmore and Graaskamp as they determine with letter of notice to publisher prior to August 31, 1983)

All royalties shall be paid on the net proceeds received from the sale of the Work.

(b) ~~Mail Order. On copies of the Work sold by radio, television, or coupon advertising, direct to the consumer, publisher will pay to Author 5% of net proceeds received.~~

(c) *Supplementary Rights.* Publisher will have the sole right to publish, license or otherwise exploit the Work, including without limitation serial, translation, motion picture, radio and television broadcast, book club, and all other rights appertaining to the Work and not covered above. The net proceeds received by Publisher therefrom will be divided equally between the parties hereto in lieu of royalty.

(d) *Remainder Sales.* On any sale of the Work at the cost of paper, printing and binding, or lower, no royalty will be paid.

8

**Royalty
Payments**

Statements of account will be rendered on each April 25 and October 25 covering the six months' periods ended the preceding December 31 and June 30, respectively, and, except as otherwise provided below, will be accompanied by payment in full of the net amount shown thereon to Author's credit. If the amount credited to Author's account for the first six months of any calendar year is less than \$50.00 such amount shall be carried over to the next six months' accounting period.

Publisher may deduct the amount of any unearned advance, overpayment of royalty or other indebtedness due to Publisher from any amount due Author.

Author agrees that any advance against royalties which Publisher may have made to Author prior to acceptance of the completed manuscript as provided in Paragraph 3 above will be repaid to Publisher promptly if Publisher determines that such manuscript and auxiliary materials are not satisfactory and offers to return them to Author upon such repayment.

9

Warranty

Author represents and warrants that the Work is original, that it does not violate the rights of any person, firm or corporation or law, and that he will indemnify Publisher and all others claiming under it against all damages suffered and expenses incurred on account of the breach of such representation or warranty.

10

Assignment

Publisher may assign this Agreement or any interest herein. Author may assign only his right to receive any amounts which become payable after receipt by Publisher of notice of such assignment.

Binding Effects

This Agreement will be binding upon and inure to the benefit of the parties hereto, the heirs and personal representatives of Author, and the successors and assigns of Publisher.

Miscellaneous

This Agreement has been executed in the State of New York and will be governed by and construed in accordance with the laws thereof. It contains the entire understanding of the parties relating to the subject matter hereof and cannot be modified or terminated or any provision waived orally. The condition that the Work be satisfactory cannot be waived expressly or impliedly and can be determined only by an officer of Publisher.

The marginal captions are inserted for convenient reference only and are not a part of this Agreement.

IN WITNESS WHEREOF, the parties have duly executed this Agreement as of the date first above written.

397 36 0864
Social Security Number

423-38-2982
Social Security Number

Social Security Number

Author

Author

Author

THE DRADEN PRESS
CBS EDUCATIONAL AND PROFESSIONAL PUBLISHING
A DIVISION OF CBS INC.

Vice president



THE DRYDEN PRESS

A Division of CBS College Publishing

October 19, 1982

Professor James Graaskamp
202A Breese Terrace
Madison, Wisconsin 53704

Mr. Gene Dilmore
Realty Researchers
586 Shades Crest Road
Birmingham, Alabama 35226

Dear Jim and Gene:

Following up on my phone conversation with Jim ~~October~~⁵ 14, I want to outline both what I need from you in terms of manuscript and when I need it, including in the course of detailing these, a brief rationale of whys and wherefores.

I am making the assumption that we will receive a complete manuscript by the date specified in the contract, December 31, 1982. If we have it by that date, we should be able to have bound books approximately twelve months later, providing the manuscript comes in as follows:

- 1) one complete, typed, double-spaced manuscript with pages numbered consecutively by chapter (i.e., 3-25, 3-26, 3-27, 3-28), with all tables, figures or other art work in place. We will have an artist render all line art (figures, graphs, decision trees, etc.). Tables are treated as text material in the composition process, and therefore require no special treatment. Such items as photos, cartoons, and the like, however, are reproduced only from black and white glossies, actual photostats, or other suitable "camera copy". Therefore, if you wish photos or cartoons, originals must be provided.
- 2) an additional "manuscript" of all figures to be drawn. This can be created by photocopying the original and pulling all artwork (again excluding tables). These should then be logged on the enclosed forms. Fill out only those blanks that are relevant; otherwise leave blank.
- 3) a caption manuscript: In this document, you should list, by chapter, the titles of all figures, exhibits, photos, cartoons, in the manuscript. The caption manuscript should be assembled from the art log. Since captions are set in a process separate from drawing the art the caption manuscript (which will itself be copy-edited for consistency) is quite important in that it ensures that captions match figures, and that no loose ends go unnoticed. Do not enter captions to tables which are treated as text and are set in the normal course of composition.

- 4) a list of any items requiring permission: I will seek permissions for you (if any), providing we do not have an overwhelming number of permission needs. You need not request or provide permission for materials on which you personally hold copyright or own rights.

When your manuscript arrives, I will send it out for review to persons teaching the course in respectable real estate or finance departments. Upon receipt of reviews confirming that they find the text satisfactory, the manuscript will be put into production (February 1, 1983, or so), for publication January 1, 1984, or earlier.

Should changes be suggested for which substantial reasons exist I would ask you to revise the manuscript accordingly in order to assure maximum marketability of the text.

Once the final manuscript is in production, a project editor will supply you with a production schedule, with key dates. Any time we pick up through expediting the galleys or pages can have a significant impact on sales since the earlier a book is published, the better the chances for adoption. Therefore, should you be able to complete your work before December 31, 1982, or should portions of the manuscript be ready for review before that date, get those materials to me for review. We will pick up some time by your supplying me with the manuscript as outlined above, but we will still be starting on the late side.

I hope your meeting goes well and that you can agree on a schedule that is compatible with my needs. An interesting development here and throughout CBS College Publishing is an aggressive new department dedicated to non-college sales - one which should be going full tilt by the time your manuscript is published - with obvious benefits to you.

Please contact me either during your meeting or following it if you foresee any obstacles or if any points require clarification.

Best,


Paul Psilos
Senior Developmental Editor

PP/as



THE DRYDEN PRESS

A Division of CBS College Publishing

JAMES J. WALSH
PUBLISHER

November 2, 1982

James Graaskamp
202A Breese Terrace
Madison, Wisconsin 53704

Gene Dilmore
Realty Researchers
586 Shades Crest Road
Birmingham, Alabama 35226

Dear Messrs. Graaskamp and Dilmore,

Attached please find a signed copy of your
contract for REAL ESTATE APPRAISAL.

We are pleased to have you join the Dryden team
of authors and look forward to working with you.

Sincerely,

Administrative Assistant to the
Publisher

Att.

dilmore



THE DRYDEN PRESS

A Division of CBS College Publishing

March 5, 1983

Professor James Graaskamp
222 A Breese Terr
Madison, Wisconsin 53711

Dear Jim:

I heard from Gene Dilmore that what you and he decided would need to be done to The New Approach to Real Estate Appraisal would require more work than could be done by December 31, 1982. However, since I have not heard from you since your meeting with Gene, I would appreciate your letting me know when you will be sending the manuscript (or portions thereof) to Dryden.

I trust it will be here before December 1, 1983, date by which we would need it if it is to be published for the 1985-86 school year.

Please let me know how your are progressing.

Best,

Paul Psilos
Senior Developmental Editor

PP/rm



THE DRYDEN PRESS

A Division of CBS College Publishing

July 12, 1983

Professor James Graaskamp
202A Breese Terrace
Madison, WI 53711

Dear Professor Graaskamp,

I am very pleased to write you with what I think you'll agree is very good news for all of us who are a part of the Dryden group.

Jim Walsh, Publisher of the Dryden Press, has been appointed Vice President and Editor-in-Chief, College Publishing, a unit of the CBS Educational and Professional Publishing Division (CEPP). In such capacity, Jim will be responsible for the acquisition, development, editing, design and production of Dryden Press and Saunders' College titles.

Jim and his family are in the process of moving from Hinsdale to Philadelphia, Saunders' location. I am sure you join me in congratulating Jim and wishing him continued success in his new position.

With Jim's promotion has come an additional promotion Dryden is quite proud of - Anne Smith. Effective immediately Anne has been appointed Associate Publisher and Acting Publisher of the Dryden Press. Her responsibilities will include supervising the editorial group with a short term goal of aiding the editors in developing, producing and publishing the 1985 list - the largest list in the history of the Dryden Press. Please help by writing fast!

I hope you will provide Anne with the same support and encouragement which you gave Jim. Thank you in advance for your help.

Sincerely,

John Bragg,
Accounting Editor

JB:ga



THE DRYDEN PRESS

A Division of CBS College Publishing

September 29, 1983

Professor James Graaskamp
202A Breese Terrace
Madison, Wisconsin 53706

Dear Jim:

I was happy to have had a chance to meet with you Friday, September 23. Your outline and first chapter arrived today. Thanks for sending them on.

I read the first chapter, and wonder if it is more polemical than it needs to be. I am not in a position to evaluate the degree of support you would have in your criticisms of the professional associations or, for that matter, the profession. However, vehement is the best one word description of the chapter I can come up with. Will it sell?

I look forward to receiving subsequent chapters and will plan to drop in around Christmas time, when I next plan to visit Madison.

Best,


Paul Psilos
Senior Developmental Editor

PP/as

CBS COLLEGE PUBLISHING

CBS Educational and Professional Publishing
A Division of CBS Inc.
383 Madison Avenue
New York, New York 10017
(212) 872-2000

November 30, 1983

Professor James Graaskamp
Department of Real Estate
University of Wisconsin
Madison, WI 53706

Dear Professor Graaskamp:

Within the next few weeks, a new Dryden Press marketing manager will be appointed to take over the responsibility of planning appropriate marketing strategies for your book, REAL ESTATE APPRAISAL.

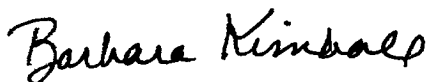
The enclosed Author's Questionnaire is the most important resource we have for accurate product information. It is the basis for the data in all our direct mail, journal and program advertisements. Beyond that it is our primary resource for competitive information and precise positioning of your book within the marketplace.

We need your cooperation and shall rely on you to provide us with a complete and detailed questionnaire by December 28, 1983.

Please do not hesitate to call your new marketing manager directly if you have any questions or suggestions related to the promotion of your book.

Thank you in advance for your help.

Sincerely,



Barbara Kimball
Director of Marketing



THE DRYDEN PRESS

A Division of CBS College Publishing

June 27, 1984

Professor James Graaskamp
Department of Real Estate
University of Wisconsin
Madison, Wisconsin 53706

Dear Professor Graaskamp,

Effective July 1, Larry Armstrong, Dryden's Accounting Editor, has assumed overall list management for Real Estate.

Larry has 13 years of textbook publishing experience serving as a field rep, regional editor and series editor for CBS, Little Brown and Prentice Hall.

He will be in touch with you shortly to update you on his plans for the series development.

Sincerely,


Bill Schoof
Publisher

WHS:rm