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LAND REGISTRATION IN THE UNITED STATES

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LAND REGISTRATION IN THE UNITED STATES

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INTRODUCTION

Man instinctively and intelligently takes care of himself as well as he can, and man does this best in a society of fellow humans. The natural human priority is self-preservation and fulfillment, but in the framework of the human group, where responsibilities to others give meaning to rights that each individual asserts for himself.

Because this reality conditions our lives, all of us eager humans, regardless of when we journey through time, have felt in our marrow the importance of a basic earthly asset - land, a commodity valuable only because we live on this planet together.

Land can test us as individuals, even as it sustains us. Land can unify and ennoble us as groups, even as it tempts us to indulge the more provincial among social concerns.

Land is simply there, majestic and desolate and fruitful and barren, blessed with enough power from Providence to await any human touch that can place it in the service of us mortals, to enhance the dignity common to each of us.

In the United States as elsewhere, it stands as witness to what we were and what we are and what we can be. Those called mighty and those called lowly can perceive their common essence in its strength.

BACKGROUND OF PROPERTY LAW

To get answers about how Americans today sort out who owns which land and when they acquired it, what their ownership means, why they wanted the land in the first place, and why the Government may be interested, we probably begin best by being as plural as possible. The United States has had some lively internal searches for its identity — indeed, one seems in progress even now — but one reality persists. America is many-sided, pluralistic. That celebrated "American way of life" is a myth. "Ways" of life, yes, and not all of them equally valid or easy or satisfying, but assuredly more than one.

That same "multi" idea describes the emergence of land law in America. To be sure, much in the final analysis comes from the English common law. There were however, only 26 "United States", all east of the Mississippi River, when we reached peace with England in 1783. Settlement elsewhere, notably around the southern end of the Mississippi, was Spanish and French .

Moreover, English influence encountered natural dilution from the time the pilgrims landed in 1620. The early New England colonies were understandably individualistic. Their settlers left England for a variety of reasons, but with a central objective — to make the most of a new land. Administrators and officials were most familiar with the English system, and this helped to preserve an English heritage, especially since many early settlers ignored legal technicalities in their activist environment.

French and Spanish influence attached to the vast lands that joined the United States via the Louisiana Purchase of 1803, but today only the State of Louisiana is primarily so oriented.

With the opening of the Northwest Territory in 1787, fledgling states commonly entered the union with constitutional assertions that laws must be "suitable to the wants and conditions of the people", or similar language, and English common law had to fit, or be made to fit, that framework.

Three factors generally conditioned land law in the continental expansion: the thinking of the migrants themselves, the exigencies of a new environment, and residual elements of Spanish and French culture in western areas. The first of these extended English common law influence across the country, and the last lingers today in the Spanish oriented "community property" concept in California and the waterway and riparian rights elements of New Mexico and Arizona law. In the State of Texas 27 million acres of land are traced as to title back to grants from Spain and Mexico.

American Indian Land Holdings

In the development of property law in the United States one thread has run through the variations, with a major exception. The thread is an allodial understanding of ownership. Land holding in America has emphasized possession by a man in his own right, in contrast to feudal tenure, namely, land held of another, with the ultimate rights held by the lord of the realm, or the king. America's emphasis on the individual does not mean, however, that he has absolute ownership. American units of government have specific rights in all property - the right to tax, the right to condemn (via the power of eminent domain), and the right to police the property - and allodial tenure does not in any way dilute any of them. It simply establishes that status as to the property is in the holder as an individual, not via a relationship of debt or service to another.

The exception to an otherwise typical individual rights orientation in American land holding is the situation of the American Indian. Here such things as tribal ownership, trust patents, allotments in severalty, and use assignments have all had their impact in the checkered history of how the alternately well-meaning and multifarious "we" have related to the oldest Americans of us all. It began before the United States did, when the English recognized and did not repudiate Indian rights in land held by Indian tribes. When the English came, there was plenty of land for everybody without any need to dispossess Indians, and the British Government insisted that land acquired from Indians be purchased at the going price, with concurrence by tribal representatives. Indian holdings not sold remained Indian lands.

The United States took over the English pattern after independence and dealt with Indian tribes as separate sovereign nations. Communal land holding patterns within tribes remained such, with individual rights in specific parcels a matter subject to treaties between the United States Government and the individual tribes. Between 1776 and 1887 a plethora of treaties and statutes accumulated. Then the General Allotment (Dawes) Act of 1887 set in motion a well-meant but unfortunate plan to stimulate land holding among individual Indians.

Portions of Indian reservations were designated allotment land, and each Indian, on a compulsory basis, received an allotted share, except that for 25 years the Government held the title in trust, and the Indian could not unilaterally sell it. Tribal land not allotted became surplus, available in due course for lease or sale to the Government or non-Indians. As things worked out, land in tribal or individual Indian ownership declined from 138 million acres in 1887 to 48 million acres in 1934. This led to the Wheeler-Howard Act which prohibited further allotment and authorized tribes to incorporate or otherwise organize to develop their holdings, with sale to individual Indians on a controlled basis. Today the United States holds in trust 50 million acres of Indian land, 39 million acres for tribes and 11 million for individual Indians.

The Common Estates

Aside from the special relationships attaching to Indian land (individual Indians may own non-trust land in fee simple as anyone else does), there exist in the United States most forms of estate found in English common law. They include:

Fee simple - This comes closest to absolute ownership, with no inhibitions as to use or possession or transfer, and without time limit. It is, however, subject to rights of the State. Fee simple and life estate are the only freehold estates from the old common law still extant in America. Fee tail has been discarded.

Life estate - A life estate exists for the life of one or more persons and ends with the death of the one specified.

Joint tenancy - In this type of estate, two or more persons each hold an individual interest in the entire estate, i.e., no particular share allocated to a particular person. It may be for a stated period or of indefinite duration.

Tenancy in common - This estate means that each of two or more persons holds a distinct, separate share of the whole, for a stated or unspecified period.

Conditional estates - These "spring into being" on the happening of an uncertain event. Some imply ownership, others do not.

Leaseholds - Leaseholds are non-freehold estates, more accurately described as personal property. A leasehold interest is a "chattel real", arising out of the contractual arrangement between landlord and tenant in the lease agreement. In some cases for tax purposes, however, leasehold estates are taxed as though they were real property.

PUBLIC LAND POLICY AND LAND OWNERSHIP

That frequent doubt and occasional frustration attend work with land title records in America is a paradox, in view of the country's emphasis on free alienation. The United States itself furnished the best example of land disposal, but after a period of vast expansion. Between 1783 and 1867 it acquired title to two billion acres of real estate, the first 237 million acres coming from the original states and the last 375 million acres comprising the purchase of Alaska from Russia.

Between 1800 and 1930, however, the United States disposed of over one billion acres of its holdings, called "public lands" or primarily "public domain." Federal public land today amounts to about 800 million acres. Initial disposition occurred to settle outstanding claims and also to effect grants to veterans of wars prior to the Civil War. In the period up to 1857 land was simply sold, in parcels no smaller than 80 acres each, and at prices of $1.25 to $2.00 per acre. The prices seem low, but the Government in those years considered such sales sources of revenue as well as stimulants to settlement.

The greatest such stimulant, however, came in 1862 in the form of the Homestead Act, which had as its clear purpose settlement of the frontier, preferably in family size farming activity. Closely related to this was the idea that the settler would own the land, as his own. He could acquire title to 160 acres, the only requirements being that he file proper application, improve the land, and live on it for five years. Three hundred million acres went into private ownership in this way within eighty years. Homesteading was not an unmixed success, especially when it involved attempted settlement of arid and rocky areas. There was also much exploitation, as when special interests coerced employees to file as homesteaders and then bought them out in order to use the land for grazing or some other non-homestead use. The minimum acreage was later raised to 640 acres, but by the 1930's it was clear that the homestead idea no longer worked. It had been abused and it meant failure to many who tried it, but it also meant fee simple ownership for many who would not otherwise have reached that goal. The homestead era may in retrospect also have been a singularly apt time for initiating title registration rather than deed registration in America.

Homesteads were clearly less controversial than the granting of 90 million acres of public domain to a group of railroad corporations between 1850 and 1871. The idea was to subsidize, the same as with less overt subsidies today, but the method, land grants to specific firms, aroused great resentment. Railroad expansion did help to link the country, and railroad indigence lately can perhaps be placed in the balance against abuses of history.

In any event, America's past contains a mixture of success and something less in the advancement of three central objectives: settlement, development, and individual ownership.

THE PATTERN OF DIVERSITY

In the United States one can often discern a dual-effect contrast at work. On the one hand, variation embellishes or corrodes a particular procedure, in natural reflection of fifty-one co-existing sovereignties (50 States and the District of Columbia). On the other hand, however, a contra influence abounds, as a common objective is perceived, or a common need is recognized, or a superior technique is discovered. The better way may gain favour slowly, but its vitality will eventually penetrate, and pervasive change will then characterize daily routines. It is something like this with land registration, except that encrusted methods retain great influence. Basic recording acts and procedures vary so much in form and effect that the assurance of title means laborious, often frustrating work. Marketable title legislation has duly appeared, complete with a suggested "model statute" for all the States, as one way to cut off "stale" claims to ownership. Title insurance takes a different tack, providing not so much insurance of title as insurance that a resolute search of records will occur. And in the wings is the Torrens type registration, a theoretically superior system that has never caught on in the United States, for reasons that its proponents and opponents rarely share. Add to this the fact that land records and facts about land use dominate many activities, and the panorama is complete, obviously ready for the better way - in this case, a unified system of land records based on a single parcel identifier system and using all the appropriate elements of modern automated data processing. Some details on the existing panorama follow.

Recording and Registration

Basic recording statutes

Recording is a simple term, an unlikely source of the complication it engenders in the United States. It is thought to have grown out of the English Statute of Emoluments, which sprouted from the Statute of Uses in 1536 with the notion that a bargain and sale of a freehold must be in writing, indented, and registered in a public office. That notion embodies the purpose of recording acts in the United States — to provide a public record of transactions affecting title to land, by placing on record the instruments of conveyance. 1/

Because recording in fact does not always protect against the claim of a good faith subsequent purchaser, two questions become fundamental in resolution of conflicting claims:

(1) Did the senior claimant fail to do something required by the act?

(2) If he did, is the junior claimant, validly under the act, in the position of one who may take advantage of such failure? 2/

1/ Johnson, Corwin W., "Purpose and Scope of Recording Statutes," 47 Lowa Law Review, Number 3, Winter 1962, P. 231.

2/ Aigler, Ralph W., Foreword to Symposium on Notice and Recordation, 47 Lowa Law Review, No. 2, Winter 1962, p. 229.

Types of statutes - Generally, there are three types of recording statutes: 1) race, 2) notice, and 3) race-notice (or notice-race).

Race statutes

Under this type, whoever records first has the title, despite the fact that he may have known of a deed to an earlier grantee. Only two states, Louisiana and North Carolina, have this type of statute as to deeds, while Arkansas, Ohio, and Pennsylvania have a race statute as to certain mortgages. Priority of claim rests simply on a "race to the records". 1/ The advantage of this type lies in its reliability to a title searcher.

Notice Statute

This variety clothes the act of recording with the power of notice to subsequent good faith purchasers. Thus, an unrecorded deed would not protect its grantee against the claim of a subsequent purchaser who acted in good faith and for value without notice. 2/

Race-Notice Statute

In a State with a race-notice statute, the subsequent purchaser would have to record his deed prior to any earlier deed if he wished to have his claim prevail 3/

Operations of recording statutes

A vast mass of paper has resulted, heavy with deeds, or conveyances if you will, showing the ownership pattern of parcels of real property. The mechanics usually involve a painstaking search by an attorney of all the public records relating to the parcel conveyed, all the way back to a "root of title" like a government patent. If everything is in order, the attorney will present an opinion declaring this, and only then will the transfer be consummated. In the Eastern United States the attorney-examiner will usually trace the record book at least 60 years to come up with a sufficiently lengthy "chain of title". In the Midwest and West the practice is to go back all the way to a government patent or something equally basic.

1/ Following is common wording of a "race statute": No conveyance of land ... shall be valid to pass any property, as against lien creditors or purchasers for a valuable consideration ... but from the time of registration thereof...

2/ An example of "notice statute" provisions: No instrument affecting real estate is of any validity against subsequent purchasers for a valuable consideration, without notice, unless filed in the office of the recorder ...

3/ Example of "race-notice" wording: Every conveyance of real property ... is void as against any subsequent purchaser of mortgages of the same property ... in good faith and for a valuable consideration, whose conveyance is first duly recorded ...

The following summarizes specific phases in a title examination in many American jurisdictions:

(1) Retrieval (abstracting), gathering pertinent detail from the record.

(2) Review, i.e., examining above detail for sufficiency and validity in the prevailing statutory and general legal framework.

(3) Report, containing property description (exactly and accurately); full names of parties most recently the fee simple title holders, with source of such status; listing of records searched and periods covered; an opinion on the marketability of the title, together with a listing of defects existing and suggestions for curing the defects. 1/

The retrieval or abstracting phase, which is the element often deemed most in need of reform, centers initially around the source deeds that make up the "chain of title" from the latest grantee to the earliest. The examiner must check each grantor in the chain, the search beginning with the grantor's index. At each step the examiner must confirm that the description for the property involved fits the parcel in question. In the many jurisdictions where there is no "tract index", verifying descriptions becomes one more in a series of laborious chores. Monuments used in original surveys may not exist, and boundaries may be exceedingly difficult to ascertain. Users, observers, and critics, indeed any who reflect on the accumulating obsolescence in the present recording system marvel that it works as well as it does. It is basically geared to an age of less paperwork and less complexity. Defects take several forms, which the following typify:

(1) System routines contribute to error and delay. The practice of name-indexing, for example, means lengthy searching with many chances for mistakes. Sheer volume of conveyances complicates future searches, each of which must thread through much that is extraneous to get to the little that is relevant.

(2) Recording does not catch everything. Instruments that are unrecordable (e.g., an executory contract to purchase) and claims not created by written instruments (e.g., adverse possession) do not come into view in the recording process.

(3) Dependence on the document recorded may not be enough to prove what is alleged. Only facts external to the document can, for example, prove the existence of forgery.

1/ Dolson, William F. and Henry Bryan, "History and Current Problems of Land Titles", Proceedings of a Workshop on Problems of Improving the United States' System of Land Titles and Records, July 25 - 29, 1968, Indiana University-Purdue University, workshop held at Mackinac Island, Michigan, pp. 12 and 13.

Marketable Title Acts

Because operation of basic recording acts has resulted so often in burdensome searches replete with trivia and useless against claims based on things like adverse possession, several individual States have resorted to marketable title legislation. 1/ Such acts name a time (40 years is used in a model statute) within which claims must be advanced to be considered. In other words, a title search would need to go back only 40 years instead of to the issuance of a government patent or some other root of title. 2/ They act as statutes of limitations as well as recording acts, barring old claims and precluding repetitive searches.

The State of Iowa developed the first one in 1919 and at least thirteen have enacted similar legislation since, with Michigan in 1945 producing the first one containing a definition of marketable title. The time periods vary, as the following examples indicate: Minnesota and Illinois, 40 years; Indiana, 50 years; Wisconsin, 30 years.

A main purpose of marketable title acts is to extinguish old title defects automatically as time passes. It is undoubtedly true that they work to shorten title searches by barring old claims, but critics fault them for jeopardizing the permanent protection supposedly built into the recording process. Under the model act, for example, all holders of interests in land would have to file notice of claim every 40 years after recording whatever instrument evidenced their acquisition. Critics also fear such acts can cut off the interest of persons unaware of an adverse claim by reason of forgery or similar circumstance. 3/

Title Insurance

In the framework of doubts and difficulties under present recording practices, private companies now grace the American scene with the commitment that they will examine public records for the conveying parties and issue "title insurance policies" based thereon, insuring clients against loss resulting from any subsequent claims. The exact number of companies is difficult to pin down, but there are over one hundred large units. Currently two major types exist, local and national. A local company is one that owns its own "title plant", an augmented duplicate of public land records for an area of one or more counties. A local company makes its own examination of the records before issuance of policies. A national company, on the other hand, maintains no title plant, depending instead on opinions submitted by "approved

1/ Basye, Paul E., "Trends and Progress - The Marketable Title Acts", 47 Iowa Law Review, No. 2, Winter 1962, pp. 261 - 288.

2/ "Root of title" in the model marketable title act developed by Professors Simes and Taylor, and the American Bar Association's Section on Real Property, Probate and Trust Law, is defined as follows: "the chain of title of a person purporting to create the interest claimed by such person upon which he relies as a basis for the marketability of his title, and which was the most recent to be recorded as of a date forty years prior to the time when marketability is being determined".

3/ Barrett, Walter E., "Marketable Title Acts -- Panacea or Pandemonium", 53 Cornell Law Review, 1967, pp. 83 - 94.

attorneys" as the backing for its insurance. National companies probably appeared because title plants are very expensive. Two new ones recently cost almost ten million dollars. 1/

In practice the companies "search" more than "insure". With a title plant usually containing a tract index that the official register of deeds may not have, the companies have a built-in advantage. Insurance against loss is another question. If any threat of loss is probable, policy coverage is hedged with disclaimers. Indeed, a standard clause removes from coverage "undiscoverable defects", unrecorded adverse claims which physical inspection would disclose, and title imperfections known to the insured before policy issuance. 2/

Reaction to title insurance companies is mixed. In the present state of things they perform a genuine service, but their vested interest in precisely the present state of things causes sceptics to question their dedication to fundamental improvement in land records. Some lawyers also contend that certain activity of title company non-lawyer personnel constitutes the unauthorized practice of law. For its part, the American Land Title Association, trade association of the group, contends it welcomes better, more standard land records.

Torrens System Incidence

The Torrens system means essentially registration of the title rather than registration, or "recording" as it is called, of the instrument of conveyance. It was originated by Mr. Robert Richard Torrens in Australia in 1858, and has since spread to many areas of the world, including Australia and New Zealand, parts of Canada, Jamaica, Uganda, the Sudan, and Malaysia. At one time or another it has been adopted by twenty-one States as an optional system, but actual use has declined in recent years, except in the Cook County (Chicago) area of Illinois, Minnesota, and Massachusetts. Under the system the claimant who seeks to register a title applies to a court for a judgment establishing his ownership. Named in the action are any known adverse claimants and all others who may have an interest. The court refers the case to an official examiner whose report becomes the basis for a judicial decision which, if favourable, results in a certificate of title being placed in the appropriate public office, with duplicate to the fee holder. Barring any successful overturn by adverse claimants in an ensuing limited period, the certificate becomes the official title to the property. Only exceptions to conclusive title are United States Government claims; tax liens and special assessments; certain easements for public highways; leases for three years or less to an occupant; and rights based on a deed from the registrant. Because there is official

1/ Ptak, Lawrence J., "Improvement of Public Records," Title News, January 1969, page 94.

2/ "Enhancing the Marketability of Land: The Suit to Quiet Title", 68 Yale Law Journal, 1959, page 1255.

certification of title by a public officer, no further independent examination is necessary. An indemnification fund is set up to reimburse any legitimate interest holders cut off through administrative negligence. A case in California wiped out virtually the entire fund in that State and California soon thereafter discarded use of the system. Torrens flounders in the United States despite many supporters. Reasons for this situation may lie in the relatively high cost of initial registration (though costs thereafter are minor); the optional character of its usage in all States adopting it (compulsory features in two early cases, one in Illinois and one in Ohio, were declared unconstitutional); and deeply rooted establishment of the present system. Many lawyers and most title companies scorn Torrens as an unacceptable alternative to present methods, and the sheer volume of accumulated records relating to land makes initial registration difficult to accomplish. 1/

Torrens adherents nevertheless persist in their support, pointing to expected expanded use in Canada as a hopeful augury.

Administrative Diffusion

Variety in American recording laws has made somewhat natural a similar, often equally questionable pattern among agencies using, responsible for, or just interested in land title and land use records. It is not only the title examiner who must search in several offices and through various indexes to find answeres about rival claimants or conflicting facts relating to land. Land records mean diffusion, in location and responsibility and facilities. A tax assessor may have a parcel identification system, but different from that in use at the recorder's office, or in probate court. Planning and zoning officials are likely to have still another variation in land identification.

Again with large-scale mapping, individual cities, counties, even private firms frequently do their own, usually at scales of one inch to fifty feet (1:600)for urban areas and one inch to two hundred feet (1:2400) for rural areas. There has been little attention until recently to the possibilities for developing maps usable at each level of government, with individual parcels identified by co-ordinates related to latitude and longitude.

Up to the present surveying in much of the United States has been based on the rectangular survey system of the nineteenth century. In this arrangement each description tells the location of the land involved by giving its distance from two fixed lines, one at right angles to the other. Of the two, the true north-south line is a principal meridian, the east-west line is a base line.

1/ 68 Yale law Journal, 1959, op. cit., pages 1254, 1255; also comment by Mr.N.C.P. Krausz, in Proceedings of a Workshop on Problems of Improving the United States' System of Land Titles and Records, Mackinac Island, Michigan, 1968, p. 40.

More than thirty principal meridians were established, all to meet surveying needs at the time, not to conform to geographical longitude. Base lines were also established as expedients of the moment.

In contrast, the United States Coast and Geodetic Survey has set up a State Plane Co-ordinate System, an activity traced back to a request from North Carolina about forty years ago. Much of the permanent monumentation for this now exists throughout the United States, and more than thirty states have authorized the use of state plane co-ordinates in legal descriptions, on an optional basis. Up to now there has been no use of such co-ordinates in any parcel identification system. 1/

1/ A basic publication containing details of state plane co-ordinates is The State Co-ordinate Systems by Hugh C. Mitchell and Lansing G. Simmons. Special Publication No. 235, U.S. Coast and Geodetic Survey, Washington, D.C., 1945 (reprinted 1957).

PROBLEMS OLD ENOUGH FOR PROGRESS

People treat with mixed awe and resignation the impetus of "an idea whose time has come." An aura of inevitable acceptance takes hold, even though resistance was just as common before. This is what some optimists feel about a unified land records system: "an idea whose time has come."

Certainly the notion itself has been around in some form or other for a long time. It helped to motivate early advocates of the Torrens system in America, and it helped to sustain them in the ensuing failure of Torrens to supersede recording. The idea of unified records seems resurgent today because serious problems require solution. They too began earlier, but their present severity adds an urgency that shakes inertia enough to make innovation possible.

There is first the socio-fiscal urban strain at work in American cities and their peripheries. For the first time in the 1970 Census, more people live in suburbs than in central cities. Population movement between 1960 and 1969 has accented the accumulation of records associated with land transfer in the various recording offices. Such movement has also left many American local governments gasping fiscally, as they strive to satisfy burgeoning demands for governmental services, often in the context of a shrinking tax base and a population majority now comprised of less affluent citizens. In metropolitan areas in 1960 central city population included 47.4 million white residents and 9.7 million black residents, with respective suburban components at 52.3 million and 2.5 million. By 1969 black residents had increased by 27 percent, to 12.3 million, in the central cities and by 32 percent, to 3.3 million, in the suburbs. Meanwhile the white component of central cities has decreased by 4.5 percent, to 45.3 million, while white residents in suburbs had grown by 27 percent, to 66.4 million. 1/

Some indication of tax base change is apparent from a study of twenty-five metropolitan areas for 1961 and 1966. Figures reveal an average increase of 63.1 percent in assessed values (base for the property tax, the levy analogous with local rating) in the suburban areas, only 24.4 percent for central city areas. 2/

Property ownership patterns are changing, in response to the pressures from a mobile population only now fully perceiving that everyone needs housing and jobs and education in a climate of equal choice. That change will

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1/ Current Population Reports, Series P-23, No. 29, U.S. Department of Commerce, Bureau of the Census, Washington, D.C., 1969.

2/ Metropolitan Disparities - A Second Reading, Advisory Commission on Intergovernmental Relations, Washington, D.C., January 1970, page 3.

accelerate is a natural implication from indicators like median family incomes, which for 1968 stood at $8,632 for all families and $5,360 for the 4.6 million black families in the country. Metropolitan area medians ranged from $9,428 to $10,959 for white families and $5,585 to $6,493 for black families. On the farm the respective overall medians were $6,018 for white families and $2,730 for black families. 1/

More housing options for all are inevitable with passage of the Civil Rights Act of 1968, which outlawed every kind of discrimination in the sale, rental, financing and advertising of housing. In the same year the U. S. Supreme Court made it unequivocally clear that the right to purchase or lease or sell or hold real or personal property is the same for everybody. 2/ In the framework of population mobility, both problems and progress exert an impact for a better cheaper system of land records, unlike a 1966 example in which transferring ownership of a $28,000 farm cost about $2,000 in title insurance, sales commissions, and legal fees. 3/

Every major contemporary concern militates for a unified land data system, one built on a single parcel identifier. These concerns include farm unit expansion, urban renewal, taxation, pollution control, zoning and planning, public health and sanitation, and not the least of these, conveyancing. Many of the larger cities in the United States, and some of medium size, have installed data processing equipment for computer performance of at least some governmental functions. While the majority of applications still relate to housekeeping aspects, like tax billing, payroll preparation, and auditing, significant emphasis now attaches also to substantive service areas of government. 4/

There is basically a lot of work involving land and land transfer, with copious paper accumulation of limited purpose under the disconnected procedures of the past that may involve several offices. Sheer volume in recording alone has become its own catalyst for change. Los Angeles County, which received 1,800 instruments per day for recording in 1925, now has a volume that approximates three times that number. The

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1/ Current Population Reports, Series P-60, No. 66, December 23, 1969, U.S. Department of Commerce, Bureau of the Census, Washington, D.C., pages 25 to 27.

2/ Jones v. Mayer, 392 U. S. 409, 1968

3/ Moyer, D. David, "Three Automated Land Data Systems in the United States," The Canadian Surveyor, Vol. XXIII, No. 2, June 1969.

4/ Moyer, D. David, "Problems in Implementing Improved Record Systems," Proceedings of Mackinac Island Workshop, July 25-28, 1968, op. cit., pp. 134-151.

inventories of real estate are formidable - Philadelphia, for example, with 600,000 parcels, and Cuyahoga County (Cleveland) with 430,000. 1/

In agricultural and rural areas the situation is similar. Information on land use and transfer accumulates in random abundance, its factual riches lost in assembly and indexing procedures cumbersome enough to be ineffective. It would be useful, for example, to know the flow of rentals and government payments associated with agriculturally used land, especially since a large portion of such land in the United States is owned by people who do not farm it themselves. Getting such information quickly and authentically, however, must await the emergence of better land records system. It is somewhat the same with land that fringes existing urban concentrations in the sometimes volatile expectancies of pre-development speculation. Those who own all of it or a small fraction of it may be content to await further appreciation in value before selling it. Conversely, they may genuinely prefer retaining a present agricultural use for another decade, especially if the land is located in one of the nineteen states currently authorizing advantageous assessed value treatment for land held in agricultural use.

It is evident that only the coordinated best effort of regional planners and developers and present owners and users will assure natural, palatable development patterns. Such effort begins, in more than a perfunctory sense, with records of land ownership that tell authoritatively and quickly who owns each distinctive parcel and for how long. The cadastral foundation for land description and transfer means little in a land record system more capable of hiding than revealing what it contains.

1/ Ptak, Lauwence J., op. cit., pp. 95 and 96.

TOWARD A UNIFIED LAND DATA SYSTEM

Automation and Data Banks

Scope

For good or ill computers now influence our lives with sweeping or subtle effect, regardless of the extent to which we understand or ignore either the simple or the esoteric components of input and output. America, which had about 35,000 in 1967, can expect two and one-half times that number in 1975. Many of them already serve governments at all levels, under outright ownership, rental, service bureau participation, and time sharing arrangements. Cities and counties at all but the lowest population levels can and do use computers at least for the housekeeping functions of tax billing, payroll, and accounting. Small jurisdictions cannot afford to own or rent individual units, which is just as well for all concerned. They can instead buy time from a central computer facility, or use alloted time on a state-owned computer, or implement some other sharing plan.

Land records naturally loom large in many of the installations, especially those related to real estate taxation, planning, public health, and public safety. While available evidence suggests only partial achievement of the fully unified, integrated electronic dataprocessing system that incorporporates land title and transfer, land use, land taxation, and land planning applications, the "partial achievement" is in certain cases very substantial. Multi-agency use of standard, area wide parcel numbering system, for example, has become somewhat more frequent, despite the formidable obstacles that presently preclude nationally compatible indentifiers.

Many of the larger jurisdictions (typically, cities and counties) and even some of medium size have installations of imposing sophistication. In certain instances they include comprehensive data banks, those facilities that combine data deposit, storage and withdrawal, preferably on a random access basis for optimum use in research and planning and in compatible operational activities.

The real property data bank in Washington, D.C., (population 746,000) a jurisdiction with 150,000 land parcels, contains 43 parcel items in its record layout, including census tract number (see Exhibit T).

Begun in 1964 in response to a request for a housing survey, it now works with a 360/50 computer (IBM) with a 256 K capacity, for a variety of purposes (public health, housing, sanitation, urban renewal, zoning, site acquisition, regional planning studies). It does not incorporate land title records, though its identifiers (a ten digit code for street address, along with official square and lot numbers for subdivided land, parcel numbers for a dwindling remainder) are also used for recording purposes. The system has had a random access since 1969.

Alexandria, Virginia, a much smaller city (estimated population 125,000 with 20,000 land parcels) has a very advanced "urban management data system," started in 1964 and, since 1967 built around a Honeywell 200 computer (20 K capacity). The data bank has 60 parcel items pertaining to the city's 3,400 street sectors. It does not, however, incorprate land title data.

In some cases the city and its surrounding county jointly create and use a single data processing facility, as the city of Cincinnati and Hamilton County (246,000 parcels of real estate) have done in Ohio. In other instances the county has the system, for its own use and that of units within it.

Nassau County in New York, with a population of 1,800,000 and with 400,000 parcels of realty, uses a 360/40 (IBM) computer for various purposes, including tax roll, payroll, police incident analysis, and accounting. Parcel indentification is by lot, block, and section number. The system does not incorporate recording operations, though the county clerk (recording official) uses the same parcel number and provides a transcript of each transfer to the assessing officials. The county clerk attempted a few years ago to improve storage and retrieval of the 10.5 million land title records on hand by installing a Mosler Selectriever Unit which through use of microfilm, had a rated capacity of 2 million documents in 2,000 cartridges, each capable of holding 100 microfiches. The county installed a second unit and used both for about one year before removing them as not adapted to the county needs. At present Nassau County still uses microfilm, together with Remington-Rand rotary files. Its pride is as much its tract index as its equipment. The index is termed a great aid for prompt access to title records.

This points up the reality that technology is a means, just as ingenuity and logic are means. Equipment can be of great assistance, but there is no guarantee that a particular model will work in a given situation. What is really essential is the optimum combination of logic and planning and resources, in the specific environment. 1/

1/ This section benefits from Moyer, D. David, "Three Automated Land Data Banks in the United States," The Canadian Surveyor, Vol. XXIII, No. 2, June 1969; Cook, Robert N., "Land Law Reform: A Modern Computerized System of Land Record ," 38 University of Cincinnati Law Review, No. 3, Summer 1969, pp. 385-448; Derr, Donn A., "Costs and Benefits of Alternative Information Systems Applicable to Real Property Records," Proceedings of a Workshop on Problems of Improving the United States' System of Land Titles and Records, July 25-28, 1968, Mackinac Island, Michigan, pages 117-130.

Information has also been assembled by the author from conversations with city and county officials in Nassau County (New York), Alexandria (Virginia) and Washington, D.C., October 30, 1970.

Cost

Costs vary with the individual installation, because applications differ and the state of pre-existing records is uneven in quantity and adaptability. The Alexandria system cost $100,000 for full implementation. Initial implementation of the Washington data bank in 1964 and 1965 cost $35,000, with most of that amount going for editing and the correction process. Operating costs exclusive of computer use now run at about $1,600 per month, with work done for individual departments and agencies on a reimbursable cost basis.

Even without full automation of a recording system, the simple conversion of land title records to microfilm can effect economies, notably in space saved, provided of course that the requisite compatibility with existing records is assured, as the Nassau County experience demonstrates.

A completely unified automated system would include microfilming for title records in association with a central computer that performed this and the other governmental functions involving land records. Computerized microfilming would imply use of a cathode ray tube connected to the computer. This is the most sophisticated among alternatives considered in a 1968 cost-benefit analysis for three Ohio counties (one urban and populous, one becoming urban, and one rural), projected over a ten-year period. Results indicated that all counties and their recording service users would benefit from microfilming, with manageable cost outlays by the governments concerned. Sophistication beyond that would tend to concentrate the benefits in larger counties, unless some centralization of facilities could be effected.

Cartography and Parcel Identification

Mapmaking

The two essentials necessary in any improved system of large scale mapping in the United States are uniformity and production economy. A suggested range for uniformity consists of four basic scales - 1:250, 1:500, 1:1,000 and 1:2,000. Each map should show equivalent distances in feet and meters. In this connection, it may be noted that "the basic legal standard of linear measurement in the United States is not the yard or foot, but the meter." 1/ One notes hastily, however, that general adoption of the admittedly efficient metric system lies somewhere in the future.

Uniformity would itself promote economy, but technical advances and joint governmental financing deserve stress here. Orthophotography, for example, carries aerial photography a step further and, at reasonable cost, produces maps of uniform scale in its basic stereo process.

1/ Cook, Robert H., "Land Law Reform: A Modern Computerized System of Land Records," 1969, op.cit. page 396.

On the financial side revenue sharing, the proposed plan through which the federal overnment commits a share of its income tax revenue to state and local governments, can aid both of the latter in joint mapping and allied effort. State and federal cooperation constitutes perhaps the most important element in expediting achievement of more economical large scale mapping. This is simply one more instance where technology plus co-operation equals minimum cost.

Parcel identification

Technical problems persist, but expectation grows that a system of parcel identifiers based on co-ordinates can eventually result. At the moment the consensus would probably rule out as too complex and unworkable any co-ordinate-oriented identifier system geared only to latitude and longtitude. Either the State Plane Coordinate System (SPCS) or the Universal Transverse Mercator System (UTM) would get support, with perhaps more for the former. 1/

SPCS would more easily accommodate to surveys showing parcel boundaries, without the necessity for zone lines at positions other than state and county boundaries. UTM, a system used by the U. S. military and by other countries, has longitudinal zones too wide for parcel surveying purposes. Its proponents say that feasible modification could overcome this. SPCS advocates favor its more immediate survey compatibility, along with its greater adaptation to computer systems now in use or in prospect. Parcel identification by means other than co-ordinates is common in several county and city property tax assessing offices. Ordinarily these do not assure compatibility with any system wider in scope than the primary assessing jurisdiction involved. One suggestion for a state-wide system (apparently offered because co-ordinate-oriented identification is too remote an idea) emerged in 1968 from representatives of the American Bar Association, the American Congress on Surveying and Mapping, and the American Land Title Association. They suggested an identifier consisting of eleven digits: two for state, three for county, three for block and two for parcel. 2/ This might improve on existing systems in some places, but it would risk confusion where a division of a single parcel creates two new ones, and it would require some cities and towns to number blocks for the first time.

1/ See Meade, B. K., "The State Plane Coordinate System: An Existing and Expanding National Grid", pages 81 to 89; also Colvocoresses, Alden P., "A Generalized Transverse Reference System", pages 89 to 116. Both articles are contained in Proceedings of the Tri-State Conference on A Comprehensive, Unified Land Data System, (CULDATA), September 9 and 10, 1966 edited by Robert N. Cook and James L. Kennedy Jr., University of Cincinnati, Cincinnati, Ohio, 1967.

2/ Cook, Robert N., op. cit., page 409.

Parcel identification by street address remains important and will be more important as results of the 1970 decennial census become available in detail, probably during the latter half of 1971. The U.S. Bureau of the Census has developed ADMATCH and DIME to aid compatibility of local data with 1970 census data. ADMATCH is a package of user-oriented computer programmes and documentation intended to assist assignment of geographic codes to computerized data records that contain street addresses. ADMATCH can link any group of data records to any reference file, provided the data records contain street addresses associated with a computer-readable reference source. Used with ADMATCH is DIME, 1/ which means Dual Independent Map Encoding, a programme designed to produce a geographic base file system, with computer mapping also possible.

All census information, it should be stressed, is subject to strict confidentiality requirements, and cannot be used in any way which discloses an individual's identity. Confidentiality has always been an essential in census operations, and it can be expected to gain wider impact if the content of data banks includes facts that might jeopardize the right to privacy. Computer processing will have to contain safeguards against any untoward disclosures.

Indexes

Almost as fundamental as parcel identification is parcel indexing. As noted earlier the usual grantor-grantee index has been a basic flaw in recording procedures extant in many American jurisdictions. There is universal agreement that some kind of parcel index is basic, no matter which identification numbering system emerges. The index should be compatible with computerization. A companion index leading to names of parties holding specific interests in land is also required, and like the parcel index, should be numeric. Numbers commonly suggested for this improved "name index" are the social security number, for individuals, and the Internal Revenue Service tax number, for groups (corporate and other).

A Unified System Enunciated

In the wake of a welter of recent studies on how American recording and land data systems assure and enlighten and too frequently exasperate their users, one articulation of what a unified system really means has received much attention. It is CULDATA, an acronym meaning Comprehensive, Unified Land Data System. 2/ It stresses as a primary essential a unique

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1/ The DIME Geocoding System, Census Use Study Report No. 4, U. S. Department of Commerce, Bureau of the Census, Washington, D. C., 1970.

2/ Principal author and exponent of the CULDATA concept is Mr. Robert N. Cook, of the University of Cincinnati College of Law, Cincinnati, Ohio. He discusses it in some detail in his article, "Land Law Reform: A Modern Computerized System of Land Records," 38 University of Cincinnati Law Review, No. 3, Summer 1969, pages 385 to 448.

numeric identifier for each parcel, one that can be used for all purposes (title, taxation, zoning, planning, whatever), and one that is fully adaptable to computer use. A parcel in this context is defined as any unit of land included within a legal description in a deed.

Around the primary essential the other basic characteristics of CULDATA constitute in summary the following:

(1) Description of land by co-ordinates connected with a national control system.

(2) A system of land title records indexed by parcel as well as by owner.

(3) Use of a national grid, or compatible grid systems, which accord with accuracy standards for land surveys, orthophotography, photogrammetry, electronic data processing, microphotography, modern document reproduction methods, and all associated systems and devices.

(4) Use of nationally compatible system of numeric code numbers for individuals and groups.

(5) Intergovernmental cooperation at all levels in all aspects of land data registration and use.

As the summary indicates, CULDATA comprises a set of integral objectives rather than a package to implement in one fell swoop. Its advocates want a unified land data system that works, no matter what its name may be. In this context it has achieved some notable success, not only in arousing interest in many quarters, but also in tangible legislation. It has also achieved the explicit endorsement of the Committee on Improvement of Land Title Records of the American Bar Association. 1/

1/ "Cooperation for Better Land Records", Real Property, Probate and Trust Journal (American Bar Association), Volume 3, No. 4, Winter 1968, pages 397 to 412.

POLICY IMPLICATIONS AND OPPORTUNITIES

Simply stated, the United States can look back and forward in attempts to make land registration a more congenial instrument among those influencing and reflecting land and its best use.

Backdrop of History

Because history makes our fallibilities show, we can learn from it. We see in its perspective the price paid for procedural diversity and basically defective indexing. We note the promise inherent in individual ownership, just as we now recognize how the same concept could be as kind to the avaricious as to the thrifty. We insist that the man who buys real estate "in good faith and for value" should get good title and should be able to prove it from the public record, and yet our complex of systems still allows an abundance of the extraneous to clutter title histories. We have amid the total clutter spanned a continent, not always with salutary result for the indigenous among our brothers. We cannot forget either history or its central lesson - that only the present and the future contain the matrix for improvement.

The Impact of Technology

Even without any wish to court complacency, we can note the extent and potential of technical advancement. New devices and processes in aerial photography mean better maps technically, regardless of delays in effecting changes within an operating system, or in developing a new system. Improved computers proliferate, regardless of any lag in custom or statute, or both, that conditions actual use even when it does not preclude optimum use. In the technological sense, we can do almost anything we wish, the hardware and the software stand ready for use. That is really the "rub", for technology by itself does nothing. The human element still plans and implements and controls its use, in the framework of all the other components of human activity - law, governmental hierarchy, established procedure, and the degree to which intelligence is reflected in each. Thus in today's context we can perceive that a unified land data system lies within reach of technology, but this is only the preface to policy, not its formation. We can now move quickly, it is true, but only as we marshal all the inputs involved, before we press any buttons.

Where and What the Acction is

Governmental action in several areas would benefit from better land records. Federal, state, and local effort to upgrade or replace the nation's 6 million substandard dwelling units might be expected to accelerate with a land record system more suited to expeditious alienation and efficient site assembly.

Similarly, urban renewal and subsidized home ownership programs under the National Housing Act of 1968 would gain needed impetus. In any urban or rural governmental program where land acquisition is a factor, improved recording practices contribute to faster progress.

The impact of improvement is actually very extensive, not alone related to the perimeters of title itself, or to land acquisition itself. Consider property tax (rating) administration, for example. In the United States the property tax remains today a major local revenue source, bringing in about $30 billion in the 1968-69 fiscal year. Of the 81,000 units of local government in the country, 71,000 levy a property tax. They administer the tax with various degrees of efficiency, though notable improvement has occurred in the past fifteen years. Jurisdictions still exist, however, where taxable property escapes assessment, in part because tax maps and parcel identification systems prove inadequate to the task. Without doubt, a major beneficiary of an improved land data system would be the property tax in some places, just as improvements now a part of the property tax in other places have helped to spearhead achievement of better land records.

Progress in a unified land data system would enhance functional performance in other governmental areas as well - estate probation, court action generally, zoning, planning, and subdivision control, and the emerging model cities programs.

In the private sector developers could gain significant economies in title search and site assembly. Rural and urban property ownership alike would attain greater certainty, encounter less litigation. Construction of all types would experience one less difficulty in a period fraught with many. Housing starts would get a welcome nudge upward, beyond the present annual rate of 1.4 million units, in a period when interest financing and other problems create the need for the stimulus of any positive factor.

NOTES OF COMPARISON FOR THE NATIONS OF AFRICA

Since African nations bring to land ownership their own pattern of variety marked by elements distinctive with them, they naturally best judge for themselves how well American practices would work in Africa. The instances in African countries where individual, tribal, and otherwise communal land holdings coexist occur in the framework of traditions, laws, and customs most familiar to the Africans themselves. Moreover, the state of development in African states imposes on respective policy makers a responsibility to place land policy affecting registration, use, and transfer within a more immediate context of overriding national objectives and interests. The optimum in agricultural production and distribution is a leading example of such objectives.

With the above preface, our basic suggestion, as you reflect on what the United States does in land registration and land administration generally, is twofold: 1) that you look at the totality of the United States picture — history, present variations, deficiencies, signs of progress; 2) that you transfer the picture to your own situation, and then decide questions of relevance.

The first half, the total United States picture, is in its way instructive. It shows what we have and what we do not have. We have a preference for unfettered alienation of property, along with autonomy for each state as to its recording laws, which in turn has meant optional title registration in some states at some times. All of this means we have often not had what ought to be a corollary of unfettered alienation, namely, reliance that the grantor was in fact able to alienate what he did, when he did it. Along with our options and autonomies, we have possibly unwittingly fallen heir to systems that often work, with or without great effort, but sometimes frustrate and disappoint.

The total picture includes as well some very impressive hardware and software and other equipment. These accoutrements obviously can be extremely helpful, but clearly they acquire significant value only in an overall plan, with all things considered. In a word, technology isn't everything, and simplified technology may overshadow sophistication in terms of usefulness. After all, the single most vital improvement in many American jurisdictions is a tract index, something that predates the computer era.

When you mentally transfer the United States picture to an African context, you may well see genuine possibilities not in the American situation but in your own. For example, yours may be among African countries which require that a conveyance be presented to a probate judge for his decision as to validity prior to registration. In such event your country need go only a short step further to bring about title registration. 1/ If the judge were to have all possible parties in interest served with notice of the action, and then decide favorably on the claimant's validity after examination of adverse claims, he could direct issuance of a title certificate, in other words, implement title registration. This might indeed be very compatible with African land situations not yet weighted down with long histories of individual transfers.

You may next have in mind those parts of the African environment in which there is communal land ownership, or individual ownership subject to the usufructuary rights of others. Policy decisions here may well hinge on such practical considerations as what co-operative arrangement will assure maximum agricultural production and distribution in the area, and what will best protect the rights of all those having an interest in the land and its products.

1/ For an example of possibilities, see

"The Assurance of Land Titles and Transactions in Liberia" by Kwamena Bentsi-Enchill and Gerald H. Zarr, Liberian Law Journal, Volume 2, December 1966, especially pages 106 to 110. It would seem that title registration should be considered in any event, but judging from recent results in Kenya and Nigeria, always within a total local framework.

If your thoughts turn to leaseholds, a rather ubiquitous entity in certain African locales, you may well conclude that Africa knows the risks and the rewards of their popularity better than America does. Here again policy that serves the millions of African people, in rural or urban setting, is the continuing imperative.

On the subject of parcel identification you can see how the United States now recognizes the desirability of such things as coordinate-oriented identifiers, and compatible numeric systems, and accurate surveys, and one parcel number for all purposes. Recognition is not fruition however, in the United States or in Africa, a caution that is its own catalyst for action. Several of your countries have already had cadastral surveys, one of the underpinnings in the creation of a unified identification system. In natural consequence you may be thinking in terms of intra-regional cooperation within Africa, to the end that as much standardization as possible results from cadastral work now in prospect.

On every side, then, as you proceed with your comparisons, you may note elements of the American experience that merit consideration in the African context. Conversely, you may conclude that some of what occurs in American systems would benefit from an African example. In either case, mutual interest would suggest a continuation of the dialogue among us, a salutary outcome indeed, with its roots in the progress of people that development naturally emphasizes.

EXHIBIT I

Master Tape Record Layout, Washington, D.C., as revised, 1969.

Input: One reel of magnetic tape, 9 track, 1600 BPI, binary coded decimal, blocking factor = 20 records.

NAME	FIELD	CHAR.
Square	1-8	8
Block Code	9-10	2
Lot	11-14	4
Urban Renewal Area Code	15-17	3
Quadrant	18	1
Street Code	19-22	4
First House Number	23-27	5
Last House Number	28-32	5
Zip Code	33-35	3
Tax Code	36-37	2
1960 Census Tract	38-40	3
Land Use Code (Finance Office)	41-42	2
Elementary School District Code	43-45	3
Health Service Area Code	46	1
Zoning	47-52	6
Key Lending Institution Code	53-55	3
Federal Property Payment Code	56	1
Class Code	57	1
Material Code	58	1
Building Multiple Code	59	1
Assessment Neighborhood Code	60-61	2
Year Last Reviewed for Reassessment	62-63	2
Reason for Reassessment	64	1
Fiscal Year of Assessment	65-66	2
Assessed Improvement Value	67-75	9
Assessed Land Value	76-84	9
Adjusted Street Rate	85-91	7
Lot Area	92-100	9
Year of Last Reassessment	101-102	2
Abbreviated Street Name	103-115	13
Name of Owners	116-163	48
Owner's Street Address	164-184	21
Owner's City	185-197	13
Owner's State	198-203	6
Federal Property Identifier Code	204-208	5
Parcel Locator	209-214	6
Year Built	215-218	4
Inverse Obsolescence Percentage	219-220	2
Total Assessed Value	221-230	10
Block Face	231-234	4
1970 Census Tract	235-237	3
1970 Census Block	238-240	3
Licensed Building Code	241-243	3
No. of Units in Licensed Bldgs.	244-246	3
Blank	247-250	4

Source: Government of the District of Columbia, Washington, D.C., 1970.