LEGAL PROTECTION OF SOLAR ACCESS UNDER JAPANESE LAW

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PROPERTY, n. Any material thing, having no particular value, that may be held by A against the cupidity of B. Whatever gratifies the passion for possession in one and disappoints it in all others. The object of man's brief rapacity and long indifference.

— Ambrose Bierce

As a specific objective, solar access protection is a novel problem for the property law systems of Japan and the United States. In both countries solar access issues first began to attract attention roughly two decades ago, for somewhat different reasons. In the United States, the primary aim has been to protect low-cost and ecologically sound solar heating and power resources from the depreciating effects of shadow. In Japan, protections have been developed in response to intense urban crowding and a humid climate. The general goal of "letting the sunshine in" is the same

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1. A. Bierce, THE DEVIL'S DICTIONARY (1911).
3. See Designs, supra note 2, at 146; Young, Governmentally Encouraged Consen-
in both countries, but the pressure for substantive change in existing law has been stronger in Japan.

In the mid-1970's, English language commentators noted certain judicial and legislative developments taking place in Japan. The Japanese Supreme Court recognized a "right to light" action for tortious interference with solar access in 1972, and in 1976 the Diet passed innovative solar access amendments to the national Construction Standards Act. Commentators have suggested that Japanese law in this area might serve as an example in developing suitable judicial doctrines and legislation in the United States.

This suggestion is as apt today as it was ten years ago; progress in U.S. jurisdictions has been slow. The main case in the area is Fountainbleau Hotel Corp. v. Forty-five Twenty-five, Inc., decided in 1959 by the Florida District Court of Appeals. This case refused as a matter of law to recognize a nuisance action for interference with the free flow of light and air. The rule of Fountainbleau is the most common rule in U.S. jurisdictions.

There has been some recent debate upon this "no nuisance" doctrine. In 1982, the Wisconsin Supreme Court reversed and remanded summary judgement against the plaintiff in Prah v. Prah.

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4. See Designs, supra note 2; Miller, supra note 2.
7. See Designs, supra note 2; Miller, supra note 2.
8. Although, as mentioned supra note 3, the Japanese efforts to protect solar access may be motivated more by a concern over "aesthetic" benefits of sunlight, the protection of solar access for aesthetic purposes necessarily protects sunlight as an energy resource as well; generally it requires more severe restrictions to assure direct sunlight to a window than to a rooftop solar collector. See Ososky, supra note 2, at 643.

Furthermore, solar access was recognized for its aesthetic benefits long before modern solar collectors had been developed. In the seminal zoning case of Village of Euclid v. Ambler Realty Company, protection of access to sunlight for aesthetic purposes was noted to be among the legitimate purposes of zoning ordinances. 272 U.S. 365, 394 (1926).
10. A more complete discussion of judicial doctrines relating to solar access is contained in Designs, supra note 2, at 124-30. San Francisco has effected regulations protecting the solar access of its city parks which require measurements similar to those required by the regulation discussed infra pp. 124-25. The general discussion in this Comment is relevant to any such regulatory system. See infra text following note 15.
Maretti, a solar access nuisance case. A dissenting justice argued in that case that a legislatively established procedure for protecting solar access precluded a nuisance action. In a case decided three years later, the New Hampshire court voiced agreement with the Prah majority, but decided against the plaintiff there on the merits. A recent California Court of Appeals decision favors the position of the dissent in Prah:

The [plaintiff's] allegations of perceptible injury cannot create a cause of action where none exists. . . . Turning to the [plaintiff's], and the Wisconsin court's, policy arguments favoring a change in the law of private nuisance, we take the position that it is solely within the province of the legislature to gauge the relative importance of social policies and decide whether to effect a change in the law. [citations omitted] The California Legislature has already seen fit to carve out an exception to established nuisance law, in the form of the California Solar Shade Control Act.

The California Solar Shade Control Act referred to by the court is curiously ill-suited to the accomplishment of its purpose. The law restricts only those shadows cast by trees and shrubs upon "active" solar systems. Shadows cast by buildings, and shadows cast upon windows and walls of "passive" solar homes are not covered by the statute. A flat ban of this sort must necessarily be limited in scope because of the tension between solar access protection and the property interests of neighboring landowners. Other jurisdictions, such as Wisconsin and New Mexico, are experimenting with more comprehensive protection schemes granting priority to those who move first to exploit the resource, through a procedure for filing against interfering uses on neighboring land. Despite these developments, it seems fair to say that there is no judicial or legislative stampede toward reform of property law principles in U.S. jurisdictions in this area.

This Comment, after a brief descriptive overview of the factors which largely explain the more acute concern over solar access in Japan, will examine the principal alternatives for solar access protection under Japanese law. It will conclude with comments on the virtue of the Japanese experiments as examples in this developing

11. 108 Wis. 2d 223, 321 N.W.2d 182 (1982).
14. California Solar Shade Control Act, CAL. PUB. RES. CODE §§ 25980 to 25986 (West 1986). Generally speaking, active solar systems are those which operate by generating electric power or involve the movement of fluids or the like, which are in turn used for heating or other purposes.
area, and on one apparent conflict between the legislative solutions adopted.

I. URBAN ENVIRONMENT

Certain features of the Japanese urban environment are alien to most American jurisdictions. To the extent that these distinguishing features create special pressures for solar access protection, they should be borne in mind when considering Japanese solutions as a model for action in other countries.

The typical Japanese household or apartment is less self-contained than its American counterpart. Even today, most housing in Japan is built without central heating.\textsuperscript{16} Householders are thus more dependent on direct sunlight for heat in the winter months.

Traditional futon bedding folds up and stores in a closet during the day. It is favored because it takes up little space in cramped urban houses and apartments. The futon has one drawback, however. The humidity of the climate in the densely populated coastal plains promotes the growth of mould in the warmer seasons, and the futon must be either dried in the sun daily or sent to a drying house at frequent intervals to prevent moisture buildup, mould and odor.\textsuperscript{17} Direct sunlight, as an essential element in the routine of the "ordinary" household, thus has perhaps a stronger attraction for the Japanese than for the American householder.

Unfortunately for many, economic forces pressing for more intense urbanization have made solar access a perquisite, as it were, of the city's upper crust. In 1980, the aggregate population density of the Tokyo metropolitan area was reported as 11,294 persons per square kilometer.

Sheer limitations on the amount of available space have shaped the market in real estate. Residential lot sizes are generally small by American standards,\textsuperscript{18} and the regulations applying to construction

\textsuperscript{16} Young, supra note 3, at 929. There are undoubtedly a number of reasons for this, but it may at least be said that when compared with centrally heated structures, buildings constructed without air ducts leave more space for human occupancy, are cheaper to build, and are not uncomfortable to a population accustomed to using localized sources of heat.

\textsuperscript{17} These procedures are seemingly considered optional by almost no one but students, and "carefree" Westerners like myself.

\textsuperscript{18} The average floorspace area for all residences in Tokyo is 42.3 square meters, or a space 22.76 feet on a side. For all residences in Osaka, the figure is 58.02 square meters, or a space 26.66 feet on a side. Sōmuchō tōkei kyoku [Statistics Department of the General Affairs Bureau], Jūtaku tōkei chōsa [Residential Statistics Survey] (1983), reprint in Kensetsu white paper [Construction Ministry], Kensetsu hakusho [Construction White Paper] app. 32 (1986). Although the figures include apartments and other multi-unit dwellings, and so do not necessarily correlate with lot sizes, the figures at least give the reader some idea of the degree of crowding in the city.
allow greater density of construction in residential areas. The setback required by the Civil Code is a mere 50 centimeters, and the Construction Standards Act, enacted in 1950, actually loosens this restriction, allowing fireproof external walls to touch the property line in certain districts.\textsuperscript{19} Other density regulations, relating to the allowable ratio of floor space to lot space and to the percentage of a lot which may be covered by structures, are also comparatively liberal. A most graphic illustration of the density of housing in the Tokyo area is a recent news report from Setagaya-ku, a residential district west of central Tokyo. It seems that although there is heavy seasonal rainfall in the district, the water drains from a close-knit blanket of housetops and asphalt roads into watertight concrete sloughs leading to Tokyo Bay; there is not enough open soil to maintain the water table, which has dropped accordingly.

If anything, the pressure to build upward has been increasing recently. Over the past several years, writers in professional journals and the popular press have expressed alarm at a sharp rise in urban property prices.\textsuperscript{20} Commercial properties demonstrated the greatest rise — some districts in central Tokyo appreciated 68\% in a single year. In September of 1986, the Tokyo city government promulgated an advisory price control regulation to supplement a similar national regulation.\textsuperscript{21} It may be presumed that, even if effective, these measures would either stifle the market altogether, or produce side effects such as the conversion of sales into long-term leasing arrangements.

Residential properties rose less sharply, but homebuyers were not left altogether unaffected. The National Land Bureau reports that in the six month period ending October 1, 1985, the market value of representative residential properties in Japan had increased a modest 1.3\%. In 1986 the increase clocked at 9.6\%.\textsuperscript{22}

\textsuperscript{19} CSA (1987), supra note 6, § 65.


\textsuperscript{21} Narita refers to this regulation as the \textit{Tochi riyō keikaku hō [Land Use Planning Act]}, supra note 20.

\textsuperscript{22} \textit{Chika, saikō ne e saya yosesusumu [Property Prices Approach Top Value]}, supra note 20. This combined figure does not reveal what was certainly a much more serious price rise in the Tokyo area.
Owners of residential properties are as sensitive to the relationship between cost and return as commercial developers; in Tokyo, 57.7% of the residences existing in 1983 consisted of multi-unit dwellings.

If a life in the metropolis is undesirable, there is a suburban alternative, but it comes with significant costs attached. Railway commute times in excess of one hour are very common for workers in the cities, and two hour commutes are certainly not unknown. The scheduling problems of long distance commuters are aggravated by the lesser frequency and earlier shut-down times of express lines. Despite these difficulties, the express lines are popular enough that they are crowded nearly to the limits of human tolerance at rush hour.23

The muted and sincere language of the Wisconsin Supreme Court in Prah v. Maretti would surely ring ironic to persons who have lived all of their lives under these conditions:

[T]he policy of favoring unhindered private development in an expanding economy is no longer in harmony with the realities of our society. [citations omitted] The need for easy and rapid development is not as great today as it once was, while our perception of the value of sunlight as a source of energy has increased significantly.

For the inhabitants of these crowded metropoli who are fortunate enough to live in houses or condominiums with southern exposure, blockage of direct sunlight to the home is one of the longstanding and all too familiar irritations of urban life. It shares this position with excessive noise, loss of privacy, the crowding of mass transit and other public facilities, and the smells, vibration, smoke and muddy streets associated with nearby construction.

From a regional or national perspective, there is a serious Scylla and Charybdis effect in providing rigorous solar access protections to homeowners. Low rise construction may enhance solar access, but it also aggravates urban sprawl, which in turn increases the commute times of most workers, and covers scarce agricultural land with housing. In this context, the goal of legal regulation is to find an appropriate balance between the local interest in a “pleasant residential environment” and the more general interest in the full exploitation of available space.

23. By way of further example, placards set out at the onset of winter warn commuters to expect a substantial increase in the crush from heavier winter clothing. Commuters are counseled to ride whenever possible outside of peak hours.

For an expression by a professor at Nihon Jōshi Daigaku (Japan Women’s University) that a long commute may not be worth the trouble, see Koyabe, Kenkō jūtaku [The Healthy Home], Yomiuri Shimbun, Feb. 3, 1987.
II. RESTRICTIVE DEVICES

However novel the protection of solar access may be in terms of legal doctrine, the immediate economics of the problem it addresses are pedestrian, invariable and familiar. For example, landowners Mr. Ko and Mr. Otsu own adjoining lots, Ko to the north and Otsu to the south. Otsu, a landlord with two tenants and a desire to increase his gross income, decides to triple the height of the building on his property. To the extent that the Ko's of the world value direct sunshine, the construction which increases Otsu's return will reduce the value of Ko's parcel.

Devices to protect Ko's interest may take the form of inducements, deterrents, or political appeals for regulation. Inducements include any contractual arrangements the two might reach, up to and including the conveyance of interests in Otsu's property. The basic principle behind the inducement strategy is the voluntary purchase of forebearance. Deterrents include both public protests and litigation. Whether the motive for initiating lawsuits and protests in individual cases is to capture a part of the value of the new construction, to force the owner to absorb costs otherwise external to his calculations, or to block construction altogether, the effect is to add an uncertain cost to high-rise construction in residential neighborhoods. This cost will discourage some builders. Appeals for regulation would typically be directed at zoning provisions, but independent legislation, such as the California, New Mexico and Wisconsin statutes noted above, is also possible. The basic principle of regulation is to forestall litigation through preemptive procedural mechanisms.

A. Inducements: Restrictions By Agreement

Under Japanese law, interests are customarily divided into intangible interests (saiken) and property interests (bukken). For purposes of this discussion, the most consequential difference between the two is the remedy available in case of breach. Speaking generally, and somewhat imprecisely, saiken interests give rise only to a right to damages, while holders of bukken interests may demand injunctive relief.

The set of possible bukken interests is limited under the doctrine of hōtei shugi, or "fixed legal rights." This doctrine, arising from § 175 of the Civil Code, restricts bukken interests to those defined under law. There are varying opinions over whether these include only those interests set forth in written law, or whether cus-

25. "Bukken exist only as established under this and other laws." MINPÔ [Civil Code] § 175.
temporary rights are included as well. In its strictest form, this doctrine would prevent the issuance of a court injunction to prevent a nuisance, since favorable judgement in a nuisance action is not one of the formal ownership interests set forth in the Civil Code. As will be discussed below, the doctrine is not strictly applied by modern courts in such actions. However, the doctrine does have an impact on the remedies for breach of contract; as a rule, injunctive relief is not available to the injured plaintiff.

Under U.S. law, interests in land which have been used to control land use include defeasible fees, express restrictive covenants, and easements.

There is no separate concept of defeasible fee under Japanese law. Even in the U.S., where such interests are available for use, they have not been favored as a device for land use planning. The draconian nature of the forfeiture “remedy” has caused courts to restrict the field of persons entitled to enforce the condition. Despite the reduced likelihood of enforcement, the cloud on the deed depresses the value of such properties. One should not expect the market to generate much demand for a device whose most noteworthy effect is to remove value from sales transactions.

1. Easement Interests: The most effective means of controlling a neighbor’s disposition of his property is of course to buy it from him. In Japan, as in the U.S., interests in land, which we may refer to generically as easement interests, can be used to slice out the exact portion to serve one’s purposes.

An easement agreement (bukken chiekiken) may concern any subject matter which provides a benefit to the dominant tenement. The class of acceptable benefits is not defined in the Civil Code, but is generally understood to include the psychological as well as the economic benefits which would arise from prohibiting the owner of the servient tenement from interfering with sunlight falling on the dominant tenement.

The owner of an easement interest has a right to demand in-
junctive relief sufficient to forward the purpose of the interest. Thus, in appropriate circumstances the holder of a sunlight easement would have a right to demand that construction be halted, that changes be made in a finished building or that the design of a building be altered to protect his right to direct sunlight.\textsuperscript{31}

Defenses against the exercise of these remedial rights include a claim similar to unconscionability\textsuperscript{32} and bar of plaintiff's action by the statute of limitations one year after the commencement of the offending construction.\textsuperscript{33}

Agreements for the conveyance of a property interest are considered valid and enforceable as between the immediate parties at the time of contracting. The interest is not valid against third parties without notice. Because of the necessarily invisible character of an easement in light and air, filing of the agreement is absolutely necessary to extend enforceability to third parties.

Having said all this, it only remains to be noted that express easements in sunlight are as uncommon in Japan as they are in the United States. The unpopularity of the express easement as a means of protecting solar access, even among those of us to whom it is quite important, arises from the dearness of the price, the existence of unhedged mortality risks, and the existence of other, less costly ways of protecting one's solar access.

If the parties in our example sit down to bargain over an easement interest, Otsu will insist on receiving the present value of the income stream he had expected from the upper floors of his planned multi-story apartment building, plus that of any other high-rise structures that might have replaced it in the future. Assuming equal bargaining power between the parties, Ko will thus have to pay for almost the entire upside potential of the property.

Mortality risks arise from the fact that Ko's need for ground floor or second story sunlight may lessen or come to an end at some time in the future. In general, a sunlight easement enhances only the upside value of Ko's property for residential uses; a commercial developer or commercial tenant will not pay much of a premium for a solar easement. If at some time in the future the pattern of development in the district calls for commercial construction on Ko's lot, the expected value of the sunlight easement over Otsu's property will drop in value.

Ko will take this risk into account, and value the interest based

\textsuperscript{31} Id.

\textsuperscript{32} This defense is founded on MINPō § 90.

\textsuperscript{33} See MINPō § 280 (referring to §§ 210-38 as the provisions to govern easement rights); MINPō § 234 (providing for a one year statute of limitations on actions for injunctive relief — does not bar an action for damages); see also M. OSAWA, supra note 30, citing 5 NAKAGAWA, FUDōSAN hō taikei [ENCYCLOPEDIA OF REAL ESTATE LAW] 122.
on the probable length of its utility. The risk of loss may be reduced to the extent that Ko can influence the future development of his district, but some portion will remain. In theory, because there is both an upside and a downside risk\textsuperscript{34} to the investment, Ko may hedge the risk away. However, such diversification requires that Ko purchase multiple interests. Property owners may be better off than most, but diversification of sunlight easement risks through the outright purchase of multiple properties is not a realistic possibility for most owners.

Alternatively, Ko might pool with other owners to insure against such risks. This plan would fall under the weight of transaction costs\textsuperscript{35} and the difficulty of determining when there has been a loss, and in what amount.

2. \textit{Leased Interests:} An easement interest may be leased rather than bought, creating a “contractual easement” (\textit{keiyaku chiekiken}). Formally, the interest created by such an agreement is considered an intangible interest (\textit{saiken}) rather than an interest in land (\textit{bukken}). As such, it is enforceable only through an action for damages. The functional distinction between this and the \textit{bukken chiekiken} discussed above is the intention of the parties, supplemented where necessary by usage of trade.\textsuperscript{36}

These covenants suffer from limitations similar to those of \textit{bukken} easements. It it true that, at least in theory, they will be cheaper to the purchaser, but the lower barriers are matched by lower benefits. The servient owner may be less reluctant to enter into such an agreement, but the dominant owner can expect only a short-term benefit, with little or no prospect of a successful rent-seeking hold-out against the servient owner in the event that the latter decides to build beyond the limitations of the covenant. Furthermore, the would-be dominant owner has little incentive to bargain until the threat of construction is imminent, at which time the cost will approach that of the full \textit{bukken} easement.\textsuperscript{37}

3. \textit{Restrictions Imposed by Sellers:} In the U.S., even with the advent of zoning laws, subdivision planning is often supported by reciprocal covenants created at the time lots are sold out of a large tract. The Japanese law of easements would seem to be well suited to this sort of planning strategy. Nonetheless, this possibility is not

\begin{itemize}
\item \textsuperscript{34} \textit{i.e.} the interest may prove to have more valuable uses, or be useful for a longer period of time, than contemplated at the time it is purchased.
\item \textsuperscript{35} In other words, who will bring all of these property owners together and convince them of the workability of the scheme?
\item \textsuperscript{36} \textit{Osawa, supra} note 30, at 84.
\item \textsuperscript{37} In other words, the time value of money, the bird-in-hand principle, will have its effect.
\end{itemize}
mentioned in Japanese commentaries on solar access protection, and does not seem to have been pursued seriously. Instead, developers have tried to achieve the benefits of land use planning without the detriments of fully enforceable limitations on the title of the land conveyed.

One device that has been used is a restriction contained in the contract of sale. The courts have generally held these clauses to be unenforceable. As against a subsequent purchaser without notice, this is justified by the same policy that requires the recording of property interests. As between purchasers from the original seller, enforcement of such clauses must be defended on third party beneficiary reasoning, which requires that the contract explicitly state that a benefit to a third party is intended. As between the original contracting parties, it is difficult to understand the courts’ resistance.

The argument against enforceability is stated by one commentator to be that, because the clause is a mere “catch-phrase” designed to attract purchasers, the parties incur only a moral obligation to abide by its terms. This argument is entirely curious; the price term itself begins life as a catch-phrase, yet once this figure is written into the contract of sale, no one suggests that the obligation to pay is “only moral.”

These clauses are not always stricken out by the courts. In a 1970 case before the Kobe District Court, a restriction prohibiting the construction of apartment buildings was upheld in a suit by the developer against an immediate purchaser. Even if these clauses are recognized as valid contractual provisions, however, the difficulty of enforcing the restrictions makes this an unattractive source of land use planning from the standpoint of the people who must live in the houses being sold. Once the developer loses his fervor for preserving the plan behind his planned neighborhood, once he has sold all the lots and is out of the picture, once properties within the development begin to change hands, these provisions lose their effectiveness under any judicial construction.

Of the contractual restrictions on neighboring land use available to the Japanese landowner, the easement provides the most sat-

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38. Osawa discusses only covenants contained in the contract of sale, which are not properly interests in land. Osawa, supra note 30, at 89-92. Minpō [Civil Code] § 175.
39. For example, a clause limiting buildings to two stories or 9 meters in height.
40. This stance contrasts with the willingness of courts in the U.S. to find implied reciprocal servitudes in patterned developments.
41. Osawa, supra note 30, at 89.
42. Case reported at 243 Hanrei Taimuzu 172 (1970).
43. Osawa also notes that a restriction, like any contract, may be voided if “its contents violate regulations or customs pertinent to the public order.” Osawa, supra note 30, at 90.
isfactory solution. As noted above, for most property owners, full hedging of the risks inherent in a sunlight easement would require either some means of controlling the general pattern of development within the district, or a pooling of risks by landowners. Systematic restriction of title by developers would help stabilize community development, and eliminate the cost of post-purchase bargaining among landowners.

Two factors may help explain the absence of this practice. First, systematic restrictions would greatly reduce the speculative attraction in owning one's home. Second, there are other means of protecting solar access, which may be cheaper to the landowner, and which do not interfere with speculation to the extent that sale of easements does. We turn now to these other means of protection.

B. Zoning

Non-consensual legal restraints on high density high-rise construction in Japanese residential districts are contained in the Construction Standards Act of 1950 (CSA) and the revised City Planning Act of 1968.44 Together, these laws serve the same basic functions as U.S. zoning enabling legislation, which they resemble in many particulars. Various zones are defined, and conditions are set which construction in each of the various districts must meet. Authority to determine the zoning classification of districts, and to impose additional restrictions and conditions is distributed among various administrative agencies.

As should become clear in the following discussion, the Japanese national zoning regime was a poor match for the explosion of urban growth that took place in the 1960's. The citizens' movement and the wave of litigation that led to major revisions of the Construction Standards Act in the subsequent decade have already been adequately documented by English language commentators.45 The purpose of this discussion is to examine the sequence of actual changes in this legislation, to the end of better understanding the solutions reached by the drafters of the revisions.

The Construction Standards Act underwent major revisions in 1970. Significant portions of these revisions affected solar access concerns, but their terms equally reflect an intention to permit higher density construction in urban areas. The thrust of the revisions is relevant to understanding both the subsequent judicial recognition of a "right to light" and the later incorporation of a

44. CSA, supra note 6; TOSHI KEIKAKU HÔ [City Planning Act], Law No. 100 of 1968. The building compact, discussed below, had been on the books for 20 years, but was scarcely used until the late 1960's. Arai, KENCHIKU KYÔTEI NO HÔTEKI SEISHITSU [Legal Character of the Building Compact], 490 JURISUTO 44 (1971).
45. See, e.g., Designs, supra note 2.
specific provision protecting solar access in the Construction Standards Act.

The 1970 revisions touched on three existing restrictions which affected solar access in some degree. In order of discussion below, these are restrictions on (1) building area ratio (kenpei ritsu), (2) floor space ratio (yōseki ritsu), and (3) height (takasa no gendo).46

1. Building Area Ratio: This provision fixes a limit on the permissible ratio of (a) lot space covered by structures to (b) total lot area. In the pre-1970 version of the restriction, this ratio was determined by subtracting 30 square meters from the lot area before performing the division. Depending on the zone concerned and the judgement of controlling officials, the ratio thus determined was limited to a figure ranging from 60% to 90%.47 Full exemptions applied to fireproof buildings located in commercial and fire prevention districts, to police stations and other public buildings, and to buildings adjoining parks and other open areas such that concerns over safety, fire prevention and sanitation were minimized.48

This provision serves purposes similar to the setbacks so common in U.S. zoning regulations, but with a difference. A setback restriction has a progressively harsher impact on small lots, requiring that variances be obtained by the owner. This marginally reduces the value of smaller parcels, discouraging lot breakup. Setbacks provide indirect protection for solar access through both the built-in distance between neighboring buildings and the greater design flexibility inherent in larger lots. On the negative side, as some residents of Los Angeles will attest, fixed and liberal setback restrictions are a contributing cause of urban sprawl.

A building area ratio restriction contains its own sliding variance. The 30 square meter exclusion provided in the pre-1970 building area ratio provision had potential for a "box-in" effect similar to that of a straight setback requirement, but with a lessening impact on larger lots. For example, the owner of a hypothetical 10 meter square lot,49 with 100 square meters of surface area, would have only 70 square meters, multiplied by the appropriate building area ratio, in which to build. However, the effect of this limitation rapidly decreases as lot size increases. When the size of a square lot reaches 15.5 meters, the 30 square meter exclusion is exceeded by the surface area of the one-half meter setback from the property line

46. These parameters are common in zoning regulations in the U.S., although the Japanese regulations are drafted with higher housing densities in mind.
47. CSA (1968), supra note 6, § 55 (2) & (3).
48. CSA (1968), supra note 6, § 55(1)(a), (b) & (c).
49. This lot size is chosen for purposes of illustration only. There is no suggestion here that this is a common parcel size in any Japanese community.
required by Civil Code § 234.\textsuperscript{50} The one case in which the ratio would still be consequential — that of fireproof buildings located in fire prevention districts, which are permitted to touch the property line\textsuperscript{51} — was specifically excluded from the application of the building area ratio.\textsuperscript{52}

However minimal the effect of the 30 square meter exclusion might have been, it was eliminated by the 1970 revisions to the CSA. In its stead, the revision provided a greater range of discretion to administrative officials in fixing the appropriate ratio. The new range runs from 30\% to 100\%, with greater discretion for waiving requirements allowed.\textsuperscript{53} In the aggregate, the effect of these revisions was to loosen this particular set of restrictions.\textsuperscript{54}

Building area restrictions are only loosely related to solar access protection. CSA section 55 and its predecessors simply require the reservation of open space; its allocation within the lot itself is unregulated.

2. Floor Space Ratio: This is a limitation on the permissible ratio of (a) total floor space within structures to (b) total lot area. Floor space ratio limitations have an impact on building height. An owner who wishes to keep his building costs to a minimum will prefer a single-story structure. If the allowable floor space ratio corresponds to the allowable building area ratio, a single story structure will suit his purposes best. Such a building will also interfere minimally with his neighbor’s enjoyment of sunlight. Where the floor space ratio exceeds the building area ratio, part of the lot’s potential living space must be located on upper floors.

The homeowner with a growing family, and the owner of a small lot who wishes to construct multi-unit housing cannot accomplish their expansion plans without exploiting the vertical potential of their building envelope. Limitations on total floor space contain this vertical growth, and thus indirectly protect solar access within neighborhoods to which the restrictions apply.

The pre-1970 version of the CSA contained two provisions limiting this ratio. The restrictions applied to areas established by the Construction Minister, under procedures set forth in the City Planning Act.\textsuperscript{55} One set of restrictions, applying to “Open Space Dis-
tricts”, was designed to minimize housing density.\(^{56}\) The other, applying to “Density Districts” was designed to provide a measure of control over high-rise construction.\(^{57}\) Provision was also made for a variety of discretionary waivers of either provision’s requirements, suggesting a reluctance to lay their full force upon landowners and developers.

These two provisions had been added to the Act in the early 1960’s; the range of discretion left to administrators may be less a sign of loose-handed legislative drafting than of a purpose to allow administrative experimentation before subsequent revisions.

The 1970 revisions imposed floor space restrictions on properties within all of the major residential zones.\(^{58}\) Although the new provisions do provide commonplace relaxation rules for properties fronting on certain roadways, and exemptions for special circumstances in which there is no cause for concern over “safety, fire prevention or sanitation”, the revision clearly seems to have been intended to strengthen the restrictive effect of the statute.

The effect of the floor space ratio limitation on the height of buildings is perhaps an incidental side effect of a primary intention to limit population densities. The chain linking available floor space with population is short and obvious. The connection between the two becomes even closer as population density rises, and the minimum tolerable living space is approached.

3. Fixed Height Restrictions and Oblique Lines: Before 1970, the CSA contained two mutually exclusive limitations on the height of buildings. The basic restriction was contained in section 57 of the CSA.\(^{59}\) The other was applicable to buildings in the same “Density Zones” discussed above in regard to floor space ratio limitations imposed between 1968 and 1970.\(^{60}\)

The basic restriction began with the proposition that buildings within residential districts must be less than 20 meters, and buildings outside residential districts less than 30 meters in height. Buildings fronting on roadways benefited from special relaxation rules.

Provision was made for exceptions to these limitations, but to state the limitations themselves is to acknowledge their ineffectiveness in protecting direct access to sunlight on the lower floors of

\(^{56}\) Id., § 56(3). This provision was ultimately cut from the Act by the 1970 revisions. Law No. 109 of 1970, 6 Hōrei Zensho 7 (1970).


\(^{59}\) CSA (1969), supra note 6, § 57. These limitations were not absolute, but subject to discretionary exceptions.

\(^{60}\) See supra note 57 and accompanying text.
most buildings. Even if, despite the small lot size typical in Japanese residential districts, solar access protection were considered one of the purposes behind a 20 meter height restriction in such districts, the roadway relaxation rules are impossible to reconcile with such purpose. These were of equal force whether or not the frontage road concerned lay to the north of the property released.

Thus, if there were a wide frontage road to the south of Otsu's property in our example, he would be able to build even higher than 20 meters, whatever the impact might be on Ko's lot and house. The restrictions on total floor space applicable to Open Space Districts and Density Districts provided the only realistic limitation on the height of structures in residential districts at this time.

In form, the special height restrictions imposed in "density" zones were more nearly responsive to the effect of a building on the neighbor's access to sunlight, but their terms were actually more permissive. For example, in a residential district subject to floor space limitation zoning, the fixed height restriction would ordinarily have been 20 meters under the basic restriction of CSA § 57. However, under the special provisions applicable to such zones, no point of the building was permitted to be higher than the sum of (a) 20 meters and (b) 1.25 times the horizontal distance from that point to the nearest property boundary. In effect, these restrictions define a linear equation; the height restriction is a slanted plane angling upward toward the center of the property at a fixed angle of roughly 51 degrees from a line lying 20 meters above the boundary line between the properties.

Like the similarly discretionary floor space area restrictions discussed above, the oblique-line provisions seem to have been at the experimental stage at this point.

The effect of the 1970 revisions on this regime was dramatic. A "slanting plane" restriction scheme, was adopted for use in all residential and semi-residential areas. The formulae applicable to a given building or portion of a building depended upon the district in which it was located, and whether the relevant boundary were a frontage road, a property line located to the north of the property, or a non-northern, non-frontage-road property line. The 20 and 30 meter minimum restrictions were fully retained for the

61. See supra notes 56 and 57 and accompanying text.
62. In the first decision to recognize a right to light, discussed below, this provision was violated by the defendant. See infra note 70 and accompanying text.
63. CSA (1969), supra note 6, § 59(5)(a).
64. CSA (1986), supra note 6, § 56. This provision replaced the section relating to Open Space Districts, discussed above.
65. Id., § 56(1).
66. Id., § 56(3).
67. Id., § 56(2).
last of these three measurements only. The frontage road provision established a plane running from the ground-level property line opposite the property in question. The minimum restriction for the northern line measurement began at 5 meters in Type One Residential Zones, and 10 meters in Type Two Residential Zones.  

An absolute height restriction of 10 meters, and a setback of one to one-and-one-half meters at the discretion of local officials was also imposed upon buildings in Type One Residential Zones.

C. Litigation

In 1972, the Tokyo Supreme Court recognized a tort action for interference with solar access. The case, Mitamura v. Suzuki, involved a residential neighborhood which, at the time of the dispute, was classified as an Open Space District, and zoned Residential. Accordingly, the floor space ratio under the CSA was 30%. Suzuki, the party to the south, added a second story to his house, which cast the Mitamura house into shadow. The addition also pushed the floor space ratio of the Suzuki house to 78% — more than twice the legal limit.

It has been noted by many that the theoretical underpinnings of the Mitamura decision are somewhat obscure, involving a combination of the traditional “abuse of rights” doctrine and the quality labeled “the common sense of society,” or requirement that injury pass a tolerance threshold before relief may be had. Nuisance doctrine is mentioned in the opinion, and indeed the standard applied in subsequent cases has come to resemble nothing so much as the balancing tests for common law private nuisance, including something like an irreparable injury requirement as grounds for the issuance of an injunction.

It is clear that the decision is not founded directly upon the Suzuki addition’s violation of the Construction Standards Act, and subsequent decisions by lower courts have granted injunctions and damages in the absence of any violation of the Construction Standards Act. Nonetheless, the interrelation between the legislative...
and the judicial attempts to cope with the sunlight problem has become increasingly apparent over time.

D. Solar Access Amendment to the CSA

At the time of the Mitamura decision itself, a groundswell of litigation had already developed in this area. The recognition of a right of action by the Supreme Court led to a further increase in filings. In 1976, the Construction Standards Act was amended once more. This revision added an explicit provision setting up a framework within which local governments could select precise guidelines for the amount of direct sunshine that must be reserved to neighboring properties.

This highly technical amendment follows the pattern of the more sophisticated of the local ordinances which had attempted to deal with the solar access problem before the authority of local governments to deal with the problem was made clear on the face of the statute. Application of the terms of the statute is within the discretion of local authorities, and there is a range of terms from which authorities may select those they choose to apply. There were and continue to be strong political incentives for officials in many districts to apply restrictions; the effect of the statute is thus not only to legitimate, but also to limit the extent and nature of local administrators' actions in protecting solar access.

For properties in districts to which it applies, the provision is triggered when the building exceeds a certain height. Once triggered, the provision sets direct limits on the permissible extent of shadows beyond the confines of the property on winter solstice. Measurements refer to an imaginary horizontal plane lying a specified distance above the surface of the lot. On this plane, the provision marks out a line 5 meters beyond the boundary of the property, and another line 10 meters beyond the boundary of the property. Between the times of day set forth in the provision, limits are fixed for the number of hours that shadow may intrude upon the space between the 5 and 10 meter lines, and beyond the 10 meter line.

Since the relevant reference points for the measurement of the building's shadow are fixed in relation to the boundary line of the

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75. Designs, supra note 2, at 136-37.
76. CSA (1986), supra note 6, § 56/2. This essay is most concerned with the genesis of regulations speaking to the solar access issue. For a discussion of the dispute resolution and informal zoning processes affected by the 1976 revisions, see Young, supra note 3, and Designs, supra note 2.
77. For a discussion of the legal character of such local regulations, see Young, supra note 3, at 960-65.
78. CSA (1987), supra note 6, § 56/2.
property, an architect can be certain, given a map of the lot itself, that a particular design conforms to the specifications of the law. The flip side, of course, is that there is no guarantee that the building which conforms to the law will not in fact interfere with its neighbor’s solar access.

If the courts felt a need at this time for a means of staying the groundswell of litigation over sunlight rights, the terms of the statute must have been welcome indeed. Although the 1976 revision does not make violation of the CSA sunlight provision a necessary condition to sustain a right to light action, courts have taken compliance with the area’s chosen zoning requirements to be an “important factor” in right to light cases. Despite a continued rise in population densities, the incidence of right to light trial cases has decreased. In particular, the case of the building in full conformance with the CSA which is nonetheless found to violate the plaintiff’s right to light is becoming a rarity. Recent cases for the most part involve attempts to evade the spirit of the statute and odd fact patterns that require special treatment.

Together with its companion zoning restrictions, the sunlight regulation of 1976 is a public regulation intended to maximize solar access without drastically reducing existing housing densities. Additional, but not necessarily consistent, private regulation is made possible by the very flexible building compact device discussed below. Laudable as a means of averting dispute and injecting a great measure of local control into the national zoning scheme, its effects on the balance between sprawl and shadow are perhaps questionable.

E. Building Compacts

The building compact (kenchiku kyōtei) is an anomalous hybrid of contractual and zoning controls creating, through consent of the landowner, an interest that is valid against third parties, yet more readily destructible than the negotiated interests outlined above. The interest was originally designed as a means of fixing standards of construction within commercial developments, but by the late 1960’s it was being used as a community planning device in some areas, and there was much discussion of its utility in averting disputes over the right to light.

79. See Natsumoto v. Ochiai, 1171 HANREI JIHÔ 110 (1986) (editor’s comment); but see Kobayashi, supra note 3, at 1-2.
82. See, e.g. Yamaki Kensetsu KK v. Imamizo, supra note 80, at 43 (noting attempts by builder to evade height restrictions by mounding dirt on the lot before construction).
83. ŌSAWA, supra note 30 at 92-99; Arai, supra note 44.
A commentator writing in 1971, after emphasizing the growing importance of the interest, stated:

[T]he legal character of this interest is a question that has been completely neglected. Perhaps this is because the building compact had almost never been used until recently, and hence no need was felt for tight theoretical explication of its provisions. A further cause may be that because in many particulars [the building compact] was a novel item at the time the Construction Standards Act was established, and because it was an anomaly in the legal system of the time, it gave rise to a strong feeling of disorientation and was shunned as a subject of legal research.84

As a legal construct, the building compact is no more mainstream now than it was 16 years ago. However, in the planning landscape of the Japanese legal system, it remains a powerful tool of local control whose effects should not be underestimated.

The statutory provisions creating the device are contained in sections 69-77 of the Construction Standards Act. Under these provisions, holders of property interests may agree to restrict their properties under terms of their own drafting. The agreement must receive the approval of holders of interests in all properties to be restricted, and it must be approved by the Specific Administration Bureau85 to become effective. Once approved, the agreement is entered on a register, and is considered effective from the date of registration.86 Agreements may be terminated by a simple majority vote of the holders of interests in properties subject to the restriction.87

The same 1976 revision of the Construction Standards Act which added the solar access provision discussed above88 also overhauled the building compact provisions. These revisions have not raised much comment, but they seem to have been calculated to lower barriers to the use of the building compact as a community planning device.

The most significant revisions affected the voting status of leasehold interests, the voting rights of interests in jointly owned land, and the effectiveness of agreements imposed by real estate developers at the time land is subdivided. It is worthy of note that the revisions fail to clear up the puzzling question of what remedies are available in the case of breach.

Prior to the revision, § 70(1) read as follows:

Under the provisions of the previous Section, persons wishing to

84. Id.
85. Tokutei Gyōsei Chō.
86. CSA (1987), supra note 6, § 75.
87. Some compacts provide for a fixed period of enforceability. See the compact reproduced at 481 JURISUTO 53-54 (1971). Others, like that reproduced at 481 JURISUTO 52-53 (1971), require such a vote to avert automatic successive renewals of the agreement.
88. See supra note 78 and accompanying text.
create agreements relating to construction (hereinafter "Building Compacts") must draft a Building Compact specifying the district of properties targeted by the agreement (hereinafter "Building Compact District"), standards relating to construction, the duration of the agreement's effectiveness, and the measures to be taken in case of a violation of the agreement to which they give their unanimous consent. Through their representatives, they must submit this to the Specific Administration Bureau and obtain its approval.89

The revision clarified the class of persons from which agreement is required, in essence by eliminating the italicized language in the paragraph quoted above and adding the following subsection:

With regard to the Building Compact referred to in the previous subsection, the unanimous consent of all property owners is required. However, in the case of lands which are intended for lease within the Building Compact District, it will be sufficient if the consent of non-lesser owners within the district is obtained.90

A further revision at § 74/2 of the Act allows a lessee to pledge conformance to an agreement for the duration of his leasehold:

(1) When the leasehold right from one to whom the force of the Building Compact concerned does not extend is terminated in part or in full, the land which had been subject to lease shall be excluded from the Building Compact District concerned.

(2) When the previous subsection applies, the party which had held the lease interest concerned must report this circumstance without delay to the Specific Administration Bureau. (3) When there has been a report under the previous subsection, or when under subsection (1) of this section [the Specific Administration Bureau] has knowledge that a property described under that subsection has been excluded from the district concerned, this circumstance shall be publicly recorded without delay.91

Together, these provisions allow the lessee to subject his interest to the restrictions of a building compact for the duration of his leasehold. Unanimity thus means unanimity with respect to interests restricted by the agreement, not unanimity of owners of underlying property interests. By increasing the number of parties whose consent may count toward the "unanimous consent" requirement of the statute, this revision seems calculated to promote the adoption of these agreements.

A further supporting revision92 allows underlying owners who did not participate in the original agreement to sign on after the agreement is publicly recorded, incurring the same restrictions as an original signer from the time this later consent is publicly recorded forward.

89. CSA (1986), supra note 6, § 70(1).
90. Id., § 70/2.
91. Id., § 74/2.
92. Id., § 75/2.
The second revision, bearing on joint ownership, provides that for purposes of consent to an agreement, and for purposes of striking down an agreement, joint owners of real property or leasehold interests shall be considered a single owner. This change is consequential only if construed to mean that this single vote may be controlled by less than unanimous consent of the joint holders of the interest. The provision does not specify what number is required, but it is reasonable to read in an implied majority vote requirement here.

In residential districts, joint owners or lessees will most often be condominium and apartment dwellers. This provision dilutes the power of these people to control — or block — building compacts within their districts. On one hand, like the entire right to light movement, this creates potential that the interests of homeowners will be forwarded at the expense of those with fewer resources. On the other hand, by decreasing the number of persons whose consent is required for “unanimous approval,” this provision enhances the chances for successful adoption of a compact in settled districts.

The third revision cuts to the problem faced by real estate developers. Agreements covering property owned by a single person are made explicitly permissible, with a special provision that such “agreements” become fully effective upon division of interest in the property within one year of the approval of the agreement by the Specific Administration Bureau. In fact, the large real estate development companies had begun making use of building compacts as early as 1970.

Much discussed in the early 1970’s as a potential means of protecting the solar access of individual property owners, the building compact seems to have taken on a lower profile in the literature in recent years. Given the market demand for low-rise developments in the ever more crowded suburbs, and the clear superiority of this arrangement to restrictions imposed by sellers in the contract of

93. Id.

94. Id., §76/2. The revised national law governing condominium ownership also provides for majority vote on many matters relating to both management and ownership rights. See, e.g. TATEMONO KUBUN SHOYU HÔ [Act Governing the Part Ownership of Buildings], Law No. 69 of 1962, §§ 39, 57 & 60.

95. See Kenchiku shingikai, Kenchiku kôsei bukai, Shigaichi kankyô bunkakai, Nisshô mondai semmon inkai [Construction Committee, Construction Planning Section, Urban Environment Group, Sunlight Problem Special Task Force]. Nisshô mondai ni kansuru taisaku ni tsuite no chûkan hôkokû [Interim Report on Countermeasures to the Sunlight Problem], reprinted in NOMURA, supra note 73 at 361. [hereinafter cited as Committee Report].

96. CSA (1986), supra note 6, §76/3. Sources mention a compact covering a development by Tokkyu Real Estate, K.K. in that year. See Arai, supra note 44, at 52.
The remedies available to property owners subject to these agreements were left uncertain by these revisions. Agreements must provide "measures in case of breach of the agreement." As commonly understood, this apparently does not empower the group forming the agreement with remedial powers. In a building compact reproduced in full in a prominent Japanese law journal, the provisions, required by law, which set forth measures against those who violate the compact refer only in general terms to "taking appropriate actions." There has been debate in the literature over the remedies appropriate to violation of these agreements — whether they may be enforced by the city government as an extension of its powers under the CSA, or whether they can only be enforced through civil actions. In practice, the latter position, supported by a literal reading of the CSA, seems to have won the field.

III. CONCLUSIONS

In less than ten years Japan developed a comprehensive set of legal mechanisms for the protection of solar access. Their effect is evident in urban Japan, where many buildings bear the markings of an encounter with the regulations discussed in this Comment. We may thus conclude that the Japanese have developed "effective" protections for solar access. More important than this, however, is the process of legislative interest balancing evident in the development and final form of the system taken as a whole.

The most striking quality of the legislative controls is the specificity of their impact. The piecemeal but self-consciously experimental development of the system has sharpened the focus of each control. Whatever the combined impact of these regulations may be at a particular time, their structure represents a refinement of control. If the legislative process is up to the task, simple quantita-

97. See supra note 39 and accompanying text.
98. Free-rider problems make the conclusion of agreements difficult within settled communities. See, e.g. Committee Report, supra note 95, at 361.
99. A separate question is whether the Specific Administration Bureau (Tokutei Gōsei Chō) has extrajudicial authority to enjoin construction which does not conform to the provisions. This bureau has power to enjoin violations of the building and zoning codes, but its power is specifically circumscribed. See GYÔSEI JIKEN SÔSHÔ HÔ [Administrative Procedure Act] § 44.
101. See ŌSAWA, supra note 30 at 95-96.
102. Starting with the City Planning Law revision.
103. Designs, supra note 2, at 146.
tive changes in the provisions now in place allow independent control over population density, housing density and open space, and solar access. The full “success” of the regulations is that, in context, they represent a compromise that may be adjusted without drastic side effects as the needs of the urban population change.

In this context, the function of the building compact provisions are an anomaly. Local governments continue to promote the conclusion of these agreements by established residents, and their use by developers as a private planning device continues. From the perspective of landowners subject to the agreements, they are an eminently reasonable means of self-regulation. It may be, however, that these landowners enjoy benefits under the agreements for which they have not paid.

Returning to our opening example, let us first assume that Mr. Otsu’s prospective building is not yet subject to any zoning or pre-agreed restrictions. Even in the absence of any district-wide restrictions, Mr. Ko may purchase solar access by, for example, an agreement imposing the conditions of § 56/2 upon any buildings constructed on Otsu’s premises. Overlooking mortality risks, the price will be fair, since an easement will cost no more than the detriment to Otsu’s property interest.

The transaction is unlikely to go forward, however, if the political alternative is a better bargain. In purchasing solar access, Ko will also reduce the amount of living space in Otsu’s building. In eliminating a potential neighbor or two, we might say that Ko benefits from reduced population density. If several hundred or several thousand neighbors were eliminated, Mr. Ko might agree with us. Such a blanket reduction cannot be smoothly accomplished by means of individual easement agreements or lawsuits because of free-rider problems; maintenance of a lower population density is a public benefit for which some must pay and which all may enjoy.

If residents can reach some consensus regarding housing densities, they can attain the dual ends of protecting solar access and limiting population density in their neighborhood. The building compact provisions encourage them, or the developer who sells their property to them, to do just that.

From an ideological perspective, there is much in local control that is reassuring. However, viewed on a national or region-wide scale, fresh concerns arise. Any lowering of population density will increase urban sprawl, covering arable farmlands and increasing commuting times for those unable to afford conveniently located properties.

Residents and decision-makers within individual residential communities are not immediately confronted with these difficulties; the only immediate effect of an enhanced local limitation on hous-
ing densities is the improvement of the neighborhood. Those unable to afford well-situated housing must commute from further afield, or live under even more crowded conditions. Japanese zoning legislation has developed in this environment, and attempts to limit the ability of local authorities to force the external costs of low-density housing onto outlying areas.

Although it is a remarkable mechanism for local land use planning control that might well serve as a model to other jurisdictions, the building compact does seem opposed to the basic aim of the zoning regulations. Down to the present, the public has apparently conceived solar access as an individual and local concern. The pressure of increased urban densities may eventually force awareness of the potential for unfairness inherent in this device. This only time itself will tell.