VERTICAL AND HORIZONTAL ASPECTS OF TAKINGS JURISPRUDENCE:
IS AIRSPACE PROPERTY?

I. INTRODUCTION

I wandered around—up the hill and over the meadows, along the stream, through the orchard . . . , across the semineglected lawns—in a haze of silly questions. Did I own the water in the brook? Did I own the soil and rocks down to the earth's core? I figured that I didn't own the scarlet tanager that I saw flying like a winged flame in the orchard, but had I owned it when it was a nestling, if it came from that orchard in the first place?¹

These questions, asked by a contemporary writer after receiving a reversionary interest in a New England farm, suggest the elusive nature of property: Does it extend vertically above and below the surface of the land, or does it merely consist of its horizontal surface? Legal theorists have long asked these and other "silly questions" as they wandered through the haze of property law. This Note does not claim to provide satisfactory answers to these questions, nor does it claim to remove the haze. Instead, it focuses on a single question: Is airspace property within the specific context of takings jurisprudence? In order to reach this narrow question, however, it is necessary, to pose the broader ones. But it must be understood that their answers, like property itself, remain elusive.

A. General Principles of Takings Jurisprudence

The fifth amendment prohibits the taking of private property without just compensation.² The prohibition is traditionally applied when the government exercises its power of eminent domain in the context of a condemnation proceeding.³ Generally, in such a case, the private owner does not question the government's power to take his property. Rather, he invokes the takings clause to insure that he is paid and that the payment offered him is "just."⁴

² U.S. Const. amend. V ("... nor shall private property be taken for public use, without just compensation") [hereinafter referred to as the "takings clause"]). This provision is applicable against the states through the 14th amendment. Chicago, B. & Q.R.R. v. Chicago, 166 U.S. 226 (1897).
⁴ In United States v. Reynolds, 397 U.S. 14, 16 (1970), Justice Stewart explained the notion of just compensation as follows:

And "just compensation" means the full monetary equivalent of the property
A property owner may also invoke the takings clause in a suit against the government in which he challenges the validity of a particular government action as applied to his property.\(^5\) In this context—often called an inverse condemnation proceeding—the property owner asks the court to decide whether a taking has occurred.\(^6\) If the court determines that it has, it will permit the action to continue only upon the government's payment of compensation to the property owner; or, as is often the case, the court may invalidate the action altogether.\(^7\)


6. The distinction between inverse condemnation and condemnation suits was described by the Ninth Circuit in American Sav. & Loan Ass'n v. County of Marin, 653 F.2d 364, 369 (9th Cir. 1981): "The issue is not the same in condemnation cases and in inverse condemnation cases. In condemnation cases the issue is damages: How much is due the landowner as just compensation? In inverse condemnation the issue is liability: Has the government's action effected a taking of the landowner's property?"

7. At present, there are at least two different, but related controversies surrounding the remedies of invalidation and compensation. The first asserts that when a regulation goes "too far" it is an abuse of the police power granted under the due process clauses of the fifth and fourteenth amendments and thus, even then, should not be characterized as a "taking." See, e.g., Comment, supra note 5. In such a case, proponents of this argument assert that invalidation is the only appropriate remedy. Therefore, it is argued, compensation is appropriate only when the power of eminent domain is invoked under the takings clause. See, e.g., Comment, Balancing Private Loss Against Public Gain to Test for a Violation of Due Process or a Taking Without Just Compensation, 54 Wash. L. Rev. 315, 315 (1979).

As a practical matter, however, the takings and due process clauses and their respective remedies of compensation and invalidation are often used interchangeably to describe the constitutional limits of a government's power to restrict private property. Recently, Justice Stevens, concurring in Williamson County Regional Planning Comm'n v. Hamilton Bank, 105 S. Ct. 3108, 3125 (1985), noted that in most cases that challenge government regulations, courts
There is little dispute that governments may exercise their police power to restrict citizens' use of property in order to protect the health, safety, and morals of the community. Indeed, a legislature's power to restrict private property has been described as "one of the most essential powers of government,—one that is the least liable." It is through the exercise of the police power that a number of government functions are made possible. They include zoning, historical preservation, and environmental protection. Although

...
such actions are admittedly destructive of private property, they may be conducted without invoking the takings clause.\(^\text{13}\) In *Pennsylvania Coal Co. v. Mahon*,\(^\text{14}\) Justice Holmes acknowledged that governments, in exercising their police power, "hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law."\(^\text{15}\) But, Justice Holmes also wrote that "[t]he general rule at least is, that while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking."\(^\text{16}\)

But Holmes' "general rule" does not appear to have been followed by nineteenth-century courts. During that time the eminent domain power, the police power, and the power to tax were all viewed as fundamental attributes of sovereignty.\(^\text{17}\) To the extent that the expression of that sovereignty through the taxing or police power destroyed or impinged upon private property rights, the takings clause\(^\text{18}\) was routinely invoked to compel the payment of compensation.\(^\text{19}\) Such challenges were rarely successful, however. Courts reasoned that property was only taken within the meaning of the takings clause when it was physically appropriated,\(^\text{20}\) implying that the exercise of one sovereign power could not be limited by operation of another.\(^\text{21}\)

This traditional analysis of takings cases incorporated a particu-

---

\(^\text{12}\) See, e.g., Andrus v. Allard, 444 U.S. 51 (1979) (protection of endangered birds); Just v. Marinette County, 56 Wis. 2d 7, 201 N.W.2d 761 (1972) (wetlands conservation).

\(^\text{13}\) "[A]ll agree that compensation is required only for a governmental 'taking' of property and not for losses occasioned by mere 'regulation,' . . . ." Sax, Takings and the Police Power, 74 Yale L.J. 36, 37 (1964); see also Stoebuck, supra note 7, at 1060 & n.20 (noting that cases cited are "explainable only by the general rule that regulations are not takings").

\(^\text{14}\) 260 U.S. 393 (1922).

\(^\text{15}\) Id. at 413.

\(^\text{16}\) Id. at 415.

\(^\text{17}\) E.g., Beekman v. Saratoga & S.R.R., 3 Paige Ch. 46 (N.Y. Ch. 1831) (eminent domain power); Mugler v. Kansas, 123 U.S. 623 (1887) (police power); Thomas v. Leland, 24 Wend. 65 (N.Y. Sup. Ct. 1840) (taxing power).

\(^\text{18}\) Most states' constitutions contain clauses similar to the federal takings clause. E.g., Pa. Const. art. I, § 10. Many of the challenges to the states' sovereign power were brought under these provisions. E.g., Sharpless v. Mayor of Philadelphia, 21 Pa. 147 (1853).

\(^\text{19}\) See, e.g., Thomas v. Leland, 24 Wend. 65 (N.Y. Sup. Ct. 1840); Sharpless v. Mayor of Philadelphia, 21 Pa. 147 (1853).


\(^\text{21}\) The Supreme Court's opinion in Mugler v. Kansas, 123 U.S. 623 (1887), typifies this approach to the takings question. Rejecting a claim that a Kansas statute prohibiting the operation of breweries effected a taking of the plaintiff's brewery, Justice Harlan explained that the 14th amendment could not be read to invalidate otherwise valid exercises of the police power simply because restrictions were placed on an owner's use of his land. Id. at 668-69; see Sax, supra note 13, at 38-39; Stoebuck, supra note 7, at 1060 & nn.17-18.
lar view of property rights. This traditional formulation contained two distinctive elements: (1) an individual’s absolute right; and (2) a tangible thing to which the right attached. Given this conception of property, the takings clause could only apply to cases in which physical property was seized or appropriated; mere diminution in value of property as the result of government action was of no legal significance.

By the end of the nineteenth century, however, American courts began to recognize new types of property, such as trademarks and trade secrets, which did not fall within the old, doctrinal formulation. As they did so, courts and legal theorists began to reformulate

---

22 To discuss the Court's development in the area of takings law, one must also discuss the Court's notion of property:

The constitutional concepts of "taking" and "property" are intertwined. To discuss one sometimes requires the making of assumptions about the nature of the other. In fact one of the persistent problems that complicates most analysis of certain difficult eminent domain cases is the failure of judges and legal writers to separate the two concepts. Stoebuck, supra note 7, at 1083.

This requirement comes not only from the constitutional underpinnings of takings law, see supra note 2, but also from the nature of the words themselves, Honoré, Ownership, in Oxford Essays in Jurisprudence 112-28 (A. Guest ed. 1961). As Professor Ackerman states: "At best these words set out a number of basic questions that must be answered: when does an interest qualify as private property? under what conditions should the state be said to have 'taken' the interest? when does justice demand compensation and how is the adequacy of payment to be assessed? . . . [T]here are many different ways of answering these questions . . . ."

B. Ackerman, Private Property and the Constitution 6 (1977).


23 Blackstone described the right of property as "that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe." 2 W. Blackstone, Commentaries *2; see Vandeveld, The New Property of the Nineteenth Century: The Development of the Modern Concept of Property, 29 Buffalo L. Rev. 325, 330-33 (1980).

24 So strong was the requirement for a thing, that if none existed, one was reified as in the case of an incorporeal hereditament. Profits, leases, and easements all fell under the rubric of incorporeal hereditaments. Admittedly intangible, incorporeal hereditaments were, nevertheless, capable of being the object of absolute dominion. 2 W. Blackstone, Commentaries *20.


26 E.g., Trademark Cases, 100 U.S. 82, 92 (1879) (describing rights associated with trade-
their definition of property to describe relationships between people instead of relationships between people and things.\textsuperscript{27} This new conception of property differed from the traditional conception in two ways. First, property ownership was no longer either absolute or exclusive. Instead of absolute dominion, the individual held a bundle of rights which could be grouped in various ways.\textsuperscript{28} These rights included exclusivity, income, use, possession, management, economic benefits, consumption, alienation, and immunity from expropriation.\textsuperscript{29} Second, because property was described in terms of the relationships between people, intangible things could be analyzed within the new system of rights.\textsuperscript{30}

To the extent that intangible property became recognized and protected by the courts, the purely appropriative model of takings analysis no longer sufficed.\textsuperscript{31} As property relations came to be viewed as a bundle of rights that could be packed and unpacked in various ways, legal recognition of a property interest meant that the government could destroy certain sticks in the bundle without appropriating mark as property rights); see Vandevelde, supra note 23, at 340-54. There are a number of explanations for this development in the law of property. One emphasizes the fact that the traditional notion of property "arose in a society in which a low level of economic activity made conflicts over land use extremely rare." M. Horwitz, The Transformation of American Law, 1780-1860, at 31 (1977). As economic activity increased so did conflicts over competing uses of land, and their resolution required an alteration of the traditional notion of an absolute right to property. Production and development, in turn, created new forms of value whose protection also depended upon the elimination of the traditional notion of property. Id.

Another explanation emphasizes legal developments rather than economic ones. It credits the expansion of equity jurisprudence and the adoption of the 14th amendment with encouraging parties to define their interests as "property" in order to maximize the extent to which they could receive legal protection. Vandevelde, supra note 23, at 333-34.

For the famous reformulation of the theory of property as relationships between people, see Hohfeld, Some Fundamental Legal Conceptions as Applied in Judicial Reasoning, 23 Yale L.J. 16, 30 (1913). These relationships, described as "the lowest common denominators of the law" were identified as "rights and duties, privileges and no-rights, powers and liabilities, immunities and disabilities." Id. at 58.

\textsuperscript{27} Of course, "ownership" does not always imply the same set of sticks in the bundle of rights." Oakes, "Property Rights," in Constitutional Analysis Today, 56 Wash. L. Rev. 583, 589 n.25 (1981); see infra note 32. The ultimate grouping has been described as "the end result of process of competition among inconsistent and contending economic values." Sax, supra note 13, at 61.


\textsuperscript{28} See Honoré, supra note 22, at 112-28. Honoré described these rights as "the standard incidents of ownership" which may be regarded as "necessary ingredients in the notion of ownership." Id. at 112; accord, Oakes, supra note 28, at 589. Professor Richard Epstein would "boil down" these incidents to a triumvirate: possession, use, and disposition. R. Epstein, supra note 28, at 59.

\textsuperscript{29} See Vandevelde, supra note 23, at 335-38.

\textsuperscript{30} See supra notes 17-18 and accompanying text.
the property.\textsuperscript{32}

A classic example can be found in the \textit{Mahon} case; there, a coal company that had sold the surface of a parcel of land while retaining as its only interest the right to mine the coal beneath the surface asked the court to decide whether the mining interest was protectable under the fifth amendment's takings clause.\textsuperscript{33} Over a dissent by Justice Brandeis, the Court answered the question affirmatively and, in an opinion by Justice Holmes, enunciated a "too far" analysis for takings in place of the appropriative model.\textsuperscript{34}

Instead of stressing the different origins of governmental power, the Court described the police power and the power of eminent domain as occupying different points along a single continuum.\textsuperscript{35} Under this analysis, government action along the continuum—from a valid police power action to an exercise of eminent domain—can be measured according to the diminution in value of an individual's property interest.\textsuperscript{36} "Too far" simply represents the point at which diminution in value is extensive enough to support a finding of appropriation.\textsuperscript{37}

\textsuperscript{32} Protection from government appropriation was, after all, only one of the sticks in the bundle of rights.

\textsuperscript{33} \textit{260 U.S.} at 413.

\textsuperscript{34} Id. at 415. Professor Stoebuck argues that with \textit{Mahon}’s "too far" test, the Court "placed in its constitutional grab-bag a doctrine contrary to \textit{Mugler}’s . . . Without choosing between the two decisions, it must be said the decision in \textit{Mahon} begins the era of extreme confusion about police power takings that still exists." Stoebuck, supra note 7, at 1063.

\textsuperscript{35} Justice Holmes' statement, quoted supra text accompanying note 16, implies the use of the continuum theory. He also wrote:

\textit{Some values are enjoyed under an implied limitation and must yield to the police power. But obviously the implied limitation must have its limits. . . . One fact for consideration in determining such limits is the extent of the diminution. When it reaches a certain magnitude, in most if not in all cases there must be an exercise of eminent domain and compensation to sustain the act.}

\textit{260 U.S.} at 413; see Sax, supra note 13, at 40-42.

\textsuperscript{36} \textit{260 U.S.} at 413.

\textsuperscript{37} At one end of the continuum, lies the individual, entitled to compensation; at the other lies the state, able to avoid payment of compensation by regrouping the bundle of rights in ways to fit within the reaches of the police power. One commentator pointed out that although both extremes are objectionable, the former is at least more objective. Dunham, supra note 7, at 80-81.

In describing these extremes, another author described the court's role as similar to: the bedeviled horseman . . . shakily astride the police and eminent domain powers as it seeks to give direction in land use affairs. . . . The steeds it rides are ill-
Adoption of the "too far" test represented an important contribution to property law because it permitted many new forms of intangible property to be protected under the takings clause. Using this analysis, the Supreme Court has extended protection from takings to such property interests as liens,38 contracts,39 trade secrets,40 lease renewals,41 and purchase options,42 which, because they did not fall within the traditional conception of property, could not easily be "taken" in the early nineteenth-century sense of physical appropriation.

Nevertheless, adoption of the "too far" test has resulted in considerable uncertainty as to the logic underlying its use; deciding how much diminution in property value is "too far" remains a matter of intuition rather than a precise calculus.43 Further imprecision and unpredictability may arise because the "too far" analysis can turn on considerations other than loss in value per se. For example, a court may feel that some types of property are "worthier" of protection than others,44 or that a particular government activity merits the near-total destruction of a property's value in order to be effective.45 Similarly, if a government action adversely affects only part of an individual's property, the calculation of how much the property has diminished in value will depend on whether the court measures the matched, sharing little sympathy for one another or for their wobbly master. The stakes in mastering them are momentous, reaching ultimately to the very definition of the property concept itself.


42 United States v. 3,035.73 Acres of Land, 650 F.2d 938, 940 (8th Cir. 1981).

More recently, Circuit Judge Oakes, in examining the Court's opinion in Penn Central, said the Court's catalogue of theories used in takings jurisprudence demonstrated "that the 'jurisprudence' is static, confused and conflicting, as it has been at least since Pennsylvania Coal." Oakes, supra note 28, at 611. He went on to remark that "[t]he takings 'jurisprudence' of the Supreme Court is still in an unsatisfactory ad hoc stage, with a lack of development of analytical principle or reconciliation of conflicting lines of precedent." Id. at 613.
44 See supra note 37.
diminution in terms of the part or the whole of the affected property; under a "too far" analysis, the choice between the part or the whole may often prove determinative.46

Some scholars have lamented the imprecision of the Court's decisions, describing them as forming a "crazy quilt pattern" of takings jurisprudence.47 Others have tried to meet the challenge by suggesting if not a precise formula, then at least a general framework for analysis. For example, one author has suggested a test which would find a taking only when a regulation is specifically directed toward benefiting a governmental entity.48 But the Court has failed to adopt any one of these methods to the exclusion of the others.49

B. Perspective and Approach

This Note suggests a broad point about the appropriate spirit in which courts should implement the "too far" analysis of takings law and advocates the treatment of airspace as protectable property under the fifth amendment. It asserts that thus far the Supreme Court has failed to recognize as takings acts that radically diminish the value of airspace. While such a position might be understandable in light of common law and doctrinal history, it is no longer tenable in light of modern legal theory and common real estate practices.

Part II examines the historical and modern treatment of airspace within the framework around which the Court has built its taking jurisprudence. Part III considers the effect that extrajudicial factors have had on the treatment of airspace and the shaping of individual expectations with respect to it. Part IV sheds new light on the most

46 The effect of this choice between the part or the whole is made clear in a comparison of the majority and dissenting opinions in American Sav. & Loan Ass'n v. County of Marin, 653 F.2d 364 (9th Cir. 1981). See also Mahon, 260 U.S. at 419 (Brandeis, J., dissenting); R. Epstein, supra note 28, at 57-58.

47 Dunham, supra note 7, at 63. For another colorful simile, see Stoebuck, supra note 7, at 1059 n.11, noting that "the collected decisions of the Supreme Court, and all other courts, leave the subject as disheveled as a ragpicker's coat."

Despite the colorful language, the Court's imprecision presents serious problems that ultimately reach "to the very definition of the property concept itself." Costonis, supra note 37, at 1022.

48 Stoebuck, supra note 7, at 1093. But see Causby v. United States, 328 U.S. 256 (1946), in which Justice Douglas wrote: "It is the owner's loss, not the taker's gain which is the measure of the value of the property taken." Id. at 261. A more radical approach to the takings question was suggested by Professor Costonis, who urged adoption of a middle position on the continuum occupied by the police power and the power of eminent domain. Termed the "accommodation power," his proposal would offer "fair" rather than "just" compensation where resort to either of the traditional alternatives, see supra text accompanying note 34, would produce unsatisfactory results. Costonis, supra note 37, at 1022.

recent Supreme Court case to have considered an airspace takings claim in an urban context and suggests a method of analysis which, it is argued, would preserve the emerging notion that airspace in many circumstances is deserving of fifth amendment protection from uncompensated takings. Part V expands on that method of analysis and shows how a court might implement it. This Note concludes that courts should consider the circumstances giving rise to individual expectations concerning airspace and extend constitutional protection to them.

II. AIRSPACE AND ITS TAKING

A. Background

Most discussions of airspace begin with a discussion of the Latin maxim, *cujus est ejus solum est usque ad coelum et ad inferos*—whomsoever owns the surface also owns from the heavens to the depths. The maxim suggests that real property occupies a vertical column of space with the surface of the earth lying along a horizontal plane at the column's center; all rights which attach to the surface similarly attach to the portions of the column above and beneath it as well.

The maxim, reifying property, thus fit neatly within the traditional assumptions about property to the extent that it permitted absolute dominion to be conferred on the airspace.

---


51 In a footnote, Justice Douglas, writing for the Court in United States v. Causby, 328 U.S. 256 (1946), attributed the maxim to Coke, Blackstone, and Kent. 328 U.S. at 261 n.5. Although Professor Blackstone wrote about the maxim in his commentaries, he acknowledged its origin to be in the civil law. 2 W. Blackstone, Commentaries *8. Authorities differ as to its precise origin. One of the more interesting explanations attributes the maxim to an ancient Anglo-Saxon belief that justified the removal of projections over burial grounds: “[T]o the sepulchre belongs not alone the ground enclosing the remains, but everything even up to the Heavens.” Hise, Ownership and Sovereignty of the Air or Air Space Above Landowner's Premises with Special Reference to Aviation, 16 Iowa L. Rev. 169, 173 (1931). Other references note the maxim's incorporation into the Napoleonic Code. Eubank, The Doctrine of the Airspace Zone of Effective Possession, 12 B.U.L. Rev. 414, 416 (1932).

52 William Blackstone wrote this about the maxim:

Land hath also, in its legal significati, an indefinite extent, upwards as well as downwards. *Cujus est solum, ejus est usque ad coelum,* is the maxim of the law, upwards. . . . [T]he word “land” includes not only the face of the earth, but every thing under it, or over it. 2 W. Blackstone, Commentaries *18. The breadth of Blackstone's statement is illustrated by the quotation that begins this Note. See supra text accompanying note 1.

53 In Chartiers Block Coal Co. v. Mellon, 152 Pa. 286, 25 A. 597 (1893) the status of the column beneath the surface was in issue. Writing for the court, Chief Judge Paxson stated: Formerly a man who owned the surface owned it to the centre of the earth. Now the surface of the land may be separated from the different *strata* underneath it, and there may be as many different owners as there are *strata*. . . . So it often
But even within the traditional theory of property, a counter-vailing maxim, \textit{res omnium communes}, was often invoked to suggest that ownership was qualified with respect to airspace.\footnote{54} As one authority wrote, the “position of this space or column of \textit{air} is peculiar."\footnote{55} The \textit{res omnium communes} maxim described air as “not, properly speaking, [a] ‘thing[] in the legal sense of the term, inasmuch as [it is] . . . not, as such, susceptible of human dominion."\footnote{56} The open air is thus prevented, wrote Sohm, “from being the object of private rights."\footnote{57} Although different from the wild animal or \textit{res nullius}, which originally belongs to no one but can become the object of private ownership through possession with the intent to control,\footnote{58} airspace analyzed under the \textit{res ominum} maxim is not inconsistent with the traditional definition of property, insofar as it contemplates the idea that only \textit{physical} property can be subject to property rights.\footnote{59}

Blackstone, perhaps the primary expositor of the traditional view of property, seemed to waiver between these two positions. On the one hand he likened the open air to

\begin{quote}
[an] animal[] . . . of a wild and untameable disposition: which any man may seise upon and keep for his own use or pleasure. . . . [S]o long as [it] remain[s] in possession, every man has a right to enjoy [it] without disturbance; but if once [it] escape[s] from his custody, or he voluntarily abandons the use of [it], [it] return[s] to the common stock, and any man else has an equal right to seise and enjoy [it] afterwards.\footnote{60}
\end{quote}

On the other hand, he likened air to flowing water,\footnote{61} and described both as examples of things which “must still unavoidably remain in happens that the owner of a farm sells the land to one man, the iron, or oil, or gas to another, giving to each purchaser a deed, or conveyance in fee simple for his particular deposit or \textit{stratum}, while he retains the surface for settlement and cultivation precisely as he held it before. The severance is complete for all legal and practical purposes. Each of the separate layers or \textit{strata} becomes a subject of taxation, of incumbrance, levy, and sale, precisely like the surface.

\begin{flushright}
Id. at 295-96, 25 A. at 598.
\end{flushright}

\begin{itemize}
\item \textsuperscript{54} R. Sohm, The Institutes of Roman Law 226 (J. Ledlie trans. 1892).
\item \textsuperscript{55} E.S.M., Horizontal Divisions of Land, 10 Am. L. Reg. 577, 579 (n.s.l.) (1862) (emphasis added).
\item \textsuperscript{56} R. Sohm, supra note 54, at 226. This observation about airspace is in keeping with the traditional formulation of property, supra notes 23-24 and accompanying text; see Hinman v. Pacific Air Transp., 84 F.2d 755 (9th Cir. 1936), cert. denied, 300 U.S. 654 (1937).
\item \textsuperscript{57} R. Sohm, supra note 54, at 225; see infra note 63.
\item \textsuperscript{58} R. Sohm, supra note 54, at 227, 237.
\item \textsuperscript{59} See infra note 63.
\item \textsuperscript{60} 2 W. Blackstone, Commentaries *14; see infra note 63.
\item \textsuperscript{61} 2 W. Blackstone, Commentaries *14. With this characterization, the Romans apparently agreed. See Sohm, supra note 54, at 226.
\end{itemize}
Some commentators have attempted to reconcile these different descriptions of rights in airspace, recognizing how both maxims can be viewed as consistent with the traditional view of property. The *cujus* maxim, as modified by the *res omnium* maxim, could be understood to mean that "the vested right of the owner to construct and plant extended to an indefinite height, if such a contingency should become at any time a possibility." Yet until such time as the landowner exercises his contingent rights, airspace could be treated as public or common property.

Early English courts seemed to adopt this view, recognizing that landowners held some interest in the space above their land but not an unlimited or absolute interest. The limitations on ownership of airspace become evident in considering the proper forms of pleading for

---

62 2 W. Blackstone, Commentaries *14.

63 One explanation for the competing philosophies characterizes the doctrines as referring to different things: *cujus* referring to "space" and *res communes* to air as an element. This distinction is important to the proper understanding of airspace in property law. As Professor Richard Wright explains:

This understanding that the basic thing we are dealing with is not "air" but "space," is essential, since it carries us past the ridiculous sophistry of those writers who insist that "air" cannot be owned since it is a gaseous substance continually in motion. The statement that air cannot be owned because of its properties is wholly irrelevant, and if it were ever expressed as a serious legal impediment, it could only have been for the purpose of providing a convenient red herring to confuse the pursuers of the space ownership concept. While air is a gaseous, mobile substance, unoccupied space like empty land stands always in the same place since its position is related to the land surface. It is always capable of occupancy, and it is in the constructive possession of the surface owner. Once it is sold, its position is still positively identifiable in relationship to the land surface if it is correctly described. If it is incorrectly or not sufficiently described, it is no different from a strip of undeveloped land whose metes and bounds description proves inadequate. Once conveyed to a third party, it passes constructively into his possession, and it may be subject to trespass, adverse possession, prescriptive use and all the other things which might conceivably happen to open land. Theoretically, once the preoccupation of talking about "air" is abandoned, there is no need to view ownership of subjacent space as being essentially different from the ownership of an open field.

R. Wright, The Law of Airspace 221-22 (1968). Professor Wright concludes: "[A]irspace is subject to private ownership separate and apart from the land surface." Id. at 259.

64 Bouvé, Private Ownership of Airspace, 1 Air L. Rev. 232, 246 (1930). This seems to be the position taken by the American courts in takings cases as they examined only the extent to which the property owner's use of the surface has been diminished. Compare United States v. Causby, 328 U.S. 256 (1946) (interference with surface gave rise to decision that invasions of airspace was a taking), with Hero Lands Co. v. United States, 554 F. Supp. 1262 (Cl. Ct.) (no taking found where invasion of airspace did not interfere with use of land), aff'd, 727 F.2d 1118 (Fed. Cir. 1983), cert. denied, 104 S. Ct. 2346 (1984).

65 See supra text accompanying notes 54-59.
a landowner claiming interference with his airspace.\textsuperscript{66} For example, in \textit{Pickering v. Rudd},\textsuperscript{67} the plaintiff sued in trespass when a board of his neighbor's was affixed to his house in such a way as to extend over the plaintiff's land.\textsuperscript{68} The court refused to allow the action in trespass, thereby rejecting the \textit{cujus} maxim in its pure form.\textsuperscript{69} In finding for the defendant, the court held that the suit could be maintained only as an action on the case, suggesting that whatever harm the plaintiff suffered could only be measured by examining his land, not the air above it.\textsuperscript{70}

American courts did not always follow the English rule.\textsuperscript{71} In \textit{Butler v. Frontier Telephone Co.},\textsuperscript{72} for example, the New York Court of Appeals was asked whether or not an ejectment action could be maintained to remove telephone wires strung above, though not touching, the plaintiff's land.\textsuperscript{73} The court reasoned that because ejectment was the proper action for recovering possession of real property, and because airspace was real property, its wrongful occupation would give rise to the action.\textsuperscript{74} The court expressly adopted the \textit{cujus} maxim and found for the plaintiff without requiring a demonstration of any harm to the land beneath the wires in order to maintain the suit.\textsuperscript{75} Similar results are found in other jurisdictions.\textsuperscript{76}

\textsuperscript{66} The precision of the pleadings was very important because a property owner's success in court often depended "upon the accuracy of his claim." F. Maitland, The Forms of Action at Common Law 67 (1941).

\textsuperscript{67} 171 Eng. Rep. 70 (1815).

\textsuperscript{68} Trespass was originally a semi-criminal action at common law which involved unlawful force "against the body, the goods, the land of the plaintiff." F. Maitland, supra note 66, at 48, 53. The plaintiff claiming trespass was not required to prove that he had suffered any physical damage, only that the defendant had used force against him. However, by the end of the 14th century, another form of action, action on the case, emerged. Id. at 66. To succeed, proof of force was unnecessary. Liability would be imposed if the plaintiff could prove he had suffered an injury. Prosser & Keeton on the Law of Torts 30, 67 (W. Keeton 5th ed. 1984).

\textsuperscript{69} 171 Eng. Rep. at 70. Lord Ellenborough wrote: "Nay, if this board overhanging the plaintiff's garden be a trespass, it would follow that an aeronaut is liable to an action of trespass... at the suit of the occupier of every field over which his balloon passes in the course of his voyage." Id. at 71.

\textsuperscript{70} Indeed, Lord Ellenborough wrote: "If any damage arises from the object which overhangs the close, the remedy is by action on the case." Id.

\textsuperscript{71} Professor Lawrence Friedman points out that several American courts and legislatures "brushed aside" many of the English rules of property law in an effort to cope with the realities of a vast, land-rich country. L. Friedman, A History of American Law 206 (1973).

\textsuperscript{72} 186 N.Y. 486, 79 N.E. 716 (1906).

\textsuperscript{73} Id. at 488, 79 N.E. at 716.

\textsuperscript{74} Adoption of the \textit{cujus} maxim permitted the court to treat the airspace as a "thing"—capable of absolute dominion. See supra note 52-53 and accompanying text.

\textsuperscript{75} 186 N.Y. at 491-92, 79 N.E. at 718.

If the wire had touched the surface of the land in permanent and exclusive occupation, it is conceded that the plaintiff would have been dispossessed \textit{pro tanto}. A part of his premises would not have been in his possession, but in the possession of
B. Airspace in the Age of Air Travel: Contingent Rights Versus Commercial Necessity

The characterization and apportionment of rights in airspace became more complicated with the advent of commercial air travel. In an effort to encourage the nascent commercial air industry, Congress passed the Air Commerce Act of 1926. The Act proclaimed that the United States had complete and exclusive national sovereignty in the airspace over its territory to the extent of what Congress called the “navigable airspace,” including the area necessary for safe take-offs and landings. By exercising sovereignty over the air, Congress imposed a legislative apportionment of rights to airspace reminiscent of the common law maxim res omnium communes.

Supporters of the Act regarded the continued acceptance of the cujus maxim in some jurisdictions to be “one of the most substantial grounds for the apprehension or embarrassment in the adequate encouragement of commercial air flight.” They favored abandoning the doctrine entirely by limiting property owners’ interest in airspace to that which was incident to their use of the land. The courts agreed and denied relief to property owners unless they could also

another. The extent of the disseisin, however, does not control, for an owner is entitled to the absolute and undisturbed possession of every part of his premises, including the space above, as much as a mine beneath. If the wire had been a huge cable, several inches thick and but a foot above the ground, there would have been a difference in degree, but not in principle. Expand the wires into a beam . . . and the difference would still be one of degree only. Enlarge the beam into a bridge, and yet space only would be occupied. Erect a house upon the bridge, and the air above the surface of the land would alone be disturbed.

---

76 E.g., McDivitt v. Bronson, 101 Neb. 437, 163 N.W. 761 (1917) (ejectment was the proper action where defendant's bay window projected over the plaintiff's boundary). These results, and specifically the Butler case were not without their detractors. E.g., Comment, Ejectment—Removal of Telephone Wires, 16 Yale L.J. 275 (1907).

77 Was the statement of Lord Ellenborough made in 1815 in Pickering v. Rudd, quoted supra note 69, prophetic?


79 Id. § 6(a), at 572.

80 Id. § 10, at 574.

81 Although the Air Commerce Act was repealed in 1958, the present code contains many features contained in the original act. See, e.g., 49 U.S.C. § 1301 (29) (1982): “'navigable airspace’ means airspace above the minimum altitudes of flight prescribed by regulations issued under this chapter, and shall include airspace needed to insure safety in take-off and landing of aircraft.”

82 See supra notes 56-57 and accompanying text. A legislative appointment of property rights is significant in the context of airspace in urban development, see infra notes 118-20 and accompanying text.


84 Id. at 99-100.
demonstrate harm to their land. 85

In Hinman v. Pacific Air Transport, 86 the plaintiff was unable to demonstrate an interruption with the enjoyment of his surface property although he charged trespass on account of airplanes flying overhead. 87 The court reasoned: "Title to the airspace unconnected with the use of land is inconceivable." 88 Thus, the Hinman court held that ownership of airspace above the ground is limited to that which is occupied or used in connection with the land.

Twenty years after its passage, the Air Commerce Act and the continued vitality of the cujus maxim were tested by the Supreme Court in United States v. Causby. 89 The plaintiffs owned a chicken farm near a government operated airport 90 and claimed that repeated low level flights over their land was a "taking of [their] airspace." 91 Finding that "continuous invasions of [the airspace] affect[ed] the use of the surface of the land itself," the Supreme Court agreed that a taking had been effected. 92 The Court defined the property taken in terms of an easement appurtenant to the land itself, 93 not in terms of a discrete segment of the vertical column of air. 94 The Court held that the easement in the airspace was inextricably tied to the landowner's full use of his land: "[I]f the landowner is to have full enjoyment of the land, he must have exclusive control of the immediate reaches of

85 See Swetland v. Curtiss Airports Corp., 55 F.2d 201 (6th Cir. 1932), in which the owners of 272 acres of land across the road from an airport brought suit against the airport's owners to enjoin them from flying or permitting airplanes under their control to fly over their land at altitudes of less than 500 feet. The court held that the Air Commerce Act of 1926 was unavailable for establishing altitudes below which landowners' interests in airspace would be absolute. Id. at 203. Nevertheless, the court, recognizing a "traditional policy of the courts to adapt the law to the economic and social needs of the times," id., held that the surface owner does have a "dominant right of occupancy for purposes incident to his use and enjoyment of the surface." id.
86 84 F.2d 755 (9th Cir. 1936), cert. denied, 300 U.S. 654 (1937).
87 Id. at 756. Although the Hinman court made no mention of the Air Commerce Act, the case arose not long after the Act became law. Discussion of the cujus maxim in the context of air travel is relevant here insofar as the tone of the court's opinion demonstrates the force with which the cujus maxim had been supplanted.
88 Id. at 757.
89 328 U.S. 256 (1946).
90 Id. at 258.
91 Brief for Respondent, reprinted at 90 L. Ed. 1208 (1946).
92 328 U.S. at 265.
93 Id. at 267-68. Contra Butler v. Frontier Tel. Co. 186 N.Y. 486, 79 N.E. 716 (1906); but see supra notes 69-71 and accompanying text. The Causby Court recognized the importance of accurately describing the nature of the property taken. Although it agreed with the lower court's description of the property as an easement, it remanded the case for further findings to determine whether the easement was permanent or temporary in order to assess the proper amount of compensation to be paid. 328 U.S. at 268.
94 See supra notes 24-46 and accompanying text.
the enveloping atmosphere.\textsuperscript{95}

Implicit in the Court's \textit{Causby} analysis is a longstanding refusal to consider the airspace as an entity apart from the surface.\textsuperscript{96} Rejecting the \textit{cujus maxim}, the Court found that the government had effected the taking by flying its planes outside the limits set by the Air Commerce Act.\textsuperscript{97} And although \textit{Causby} is often cited to support the proposition that invasions of \textit{airspace} may be compensable,\textsuperscript{98} such reliance is misplaced as evidenced by the Court's reliance on \textit{Hinman}.

The Court's reasoning was subsequently invoked by the Claims Court in \textit{Hero Lands Co. v. United States}.\textsuperscript{99} In \textit{Hero} the plaintiff owned sixteen tracts of land, all of which were either adjacent to, or very near, a naval air installation.\textsuperscript{100} The plaintiff claimed that the operation of the installation effected a taking of his airspace.\textsuperscript{101} Dismissing the case, the Claims Court wrote:

\begin{quote}
As the regular and frequent flights by defendant's aircraft through the airspace above . . . portions of the Hero Lands . . . have not resulted in any substantial interference with the use and enjoyment of such lands . . . it necessarily follows that the defendant is not liable to the plaintiffs for the taking of [any] avigation easements . . . .\textsuperscript{102}
\end{quote}

A similar analysis has been used in the context of zoning near airports.\textsuperscript{103} In \textit{Indiana Toll Road Commission v. Jankovich},\textsuperscript{104} the operators of a municipal airport brought suit for injunctive relief and damages against the operators of a toll road because its height, in violation of a restrictive ordinance, obstructed the glide path to the airport.\textsuperscript{105} The toll road operators defended the suit by claiming that

\textsuperscript{95} 328 U.S. at 264 (emphasis added).
\textsuperscript{96} See supra note 46 and accompanying text. The Court's examination of the airspace was subsidiary to its examination of the land. Adoption of this approach clearly contradicts the approach taken by courts such as \textit{Butler}. See supra notes 72-75.
\textsuperscript{97} 328 U.S. at 260-61.
\textsuperscript{100} Id. at 1263.
\textsuperscript{101} Id.
\textsuperscript{102} Id. at 1264.
\textsuperscript{104} 244 Ind. 574, 193 N.E.2d 237 (1963), cert. dismissed, 379 U.S. 487 (1965).
\textsuperscript{105} Id. at 575-77, 193 N.E.2d at 237-38.
the zoning effected "a taking of private property for public use."\textsuperscript{106} The state legislature had provided that "ownership of the space above the lands and waters of this state is declared to be vested in the several owners of the surface beneath."\textsuperscript{107} As a result, the state's high court had few obstacles in finding for the toll operators.\textsuperscript{108} Still, the state court, relying upon the reasoning of federal cases such as \textit{Causby} for support,\textsuperscript{109} ultimately held that "reasonable and ordinary use of air space above land is a property right which cannot be taken without the payment of [just] compensation."\textsuperscript{110} Thus, despite Indiana's constitutional provision for ownership of airspace, its highest court did not treat the airspace as property for takings purposes but regarded the government's interference solely in terms of the owner's use of the land.\textsuperscript{111}

A survey of the cases dealing with airplane overflights reveals that the courts have retained a traditional view of airspace as legally significant only by reference to the underlying land.\textsuperscript{112} These cases were tacitly governed by Congress' clear expression of its intention to limit landowners' dominion over airspace—whenever air travel might be affected.\textsuperscript{113} Those cases decided in favor of the landowner may therefore be understood as ones in which the government's interest in air travel was surpassed by the landowner's use of his land.\textsuperscript{114} Although these cases may be read for the proposition that airspace is not separable property protected under the fifth amendment, they should not be controlling in other legal contexts absent an equally

\textsuperscript{106} Id. at 577, 193 N.E.2d at 238. Their claim rested on both the U.S. Const. amend. XIV, and the Ind. Const. art. I, § 21, which provides as follows: "No man's particular services shall be demanded, without just compensation. No man's property shall be taken by law, without just compensation; nor, except in case of the State, without such compensation first assessed and tendered."

\textsuperscript{107} See 244 Ind. at 579, 193 N.E.2d at 239.

\textsuperscript{108} The ease with which the court decided the case has been criticized for its superficiality. See \textit{Comment, Airport Approach Zoning: Ad Coelum Rejuvenated}, 12 UCLA L. Rev. 1451, 1454 (1965). The author proposes that cases like \textit{Jankovich} be analyzed according to a system of judicial cost allocation. Under this scheme, especially where the government is operating in an enterprise capacity, the party most able to bear the cost of the property should bear the cost. Id. at 1457-60.

\textsuperscript{109} 244 Ind. at 580, 193 N.E.2d at 240. Certiori was dismissed as having been improvidently granted, 379 U.S. 487 (1965). Writing for the Court, Mr. Justice White acknowledged that although the state court relied on \textit{Causby} and Griggs v. Allegheny County, 369 U.S. 84 (1966), in reasoning that airspace is invested with some sort of protection, nothing in the state court's opinion suggested that the right "flows from a federal rather than a state source," 379 U.S. at 491.

\textsuperscript{110} 244 Ind. at 581, 193 N.E.2d at 240 (emphasis added).

\textsuperscript{111} Supra notes 24-46 and accompanying text.

\textsuperscript{112} See supra notes 67-69 and accompanying text.

\textsuperscript{113} See supra notes 78-85 and accompanying text.

\textsuperscript{114} E.g., \textit{Causby}, 328 U.S. 256 (1945).
overriding government interest.\textsuperscript{115}

III. AIRSPACE AND URBAN DEVELOPMENT

Property—in the modern sense of the word—can be understood as people’s established expectations as to the benefits they are likely to derive from ownership of various things.\textsuperscript{116} Such expectations are, at least in part, the product of case law. To the extent that court decisions shape people’s expectations, this definition of property is somewhat circular: when a court decides that a given thing is protectable within the meaning of the fifth amendment, it not only creates property, but it also creates the expectation that similar circumstances will bring about the same result. A completely circular view of property as comprised of nothing more than expectations shaped by case law would ignore extrajudicial factors which also shape people’s expectations about property.\textsuperscript{117}

One such factor contributing to the expectations giving rise to the legal complexity of airspace is the existence of zoning. Since it was first instituted in a comprehensive fashion in 1916, zoning has been a feature of the urban landscape.\textsuperscript{118} Admittedly within the bounds of the police power, zoning restrictions limit the bulk, use, and height of buildings which are permissible on land subject to zoning ordinances.\textsuperscript{119} As a result, zoning creates certain expectations in property owners about the extent to which they may occupy their land. In so doing, zoning apportions rights respecting airspace as well as land. Of course, zoning ordinances may change and thus modify property-

\textsuperscript{115} See supra text accompanying note 45.
\textsuperscript{116} According to Jeremy Bentham:

The idea of property consists in an established expectation; in the persuasion of being able to draw such or such an advantage from the thing possessed, according to the nature of the case. Now this expectation, this persuasion, can only be the work of law. I cannot count upon the enjoyment of that which I regard as mine, except through the promise of the law which guarantees it to me. It is law alone which permits me to forget my natural weakness. It is only through the protection of law that I am able to inclose a field, and to give myself up to its cultivation with the sure though distant hope of harvest.


\textsuperscript{117} See infra notes 118-138 and accompanying text.
\textsuperscript{118} See Village of Euclid v. Ambler Realty Co., 272 U.S. 365, 386-87 (1926).
\textsuperscript{119} See J. Dukeminier & J. Krier, Property 1230-31 (1981). Zoning has also been used to regulate the aesthetic character of a neighborhood, e.g., Stoyanoff v. Berkeley, 458 S.W.2d 305 (Mo. 1970), as well as to protect traditional family values, Village of Belle Terre v. Boraas, 416 U.S. 1 (1974).
owners' expectations, but propertyowners are protected against radical changes in their expectations as created by zoning ordinances.\footnote{120} Within this general framework, zoning seems to create the expectation that ownership extends just so high, and up to that height the *cujus* maxim remains applicable, permitting landowners to exercise their rights in the airspace to the limits set by applicable zoning ordinances.

Furthermore, urbanization gave rise to various commercial practices which further refined the apportionment of rights to land and airspace, allowing property owners to maximize the development potential of a particular lot.\footnote{121} Railroads, in particular, developed a commercial practice by which they separated, or bifurcated ownership between surface and airspace of urban property.\footnote{122} This was necessary for the railroads because they had acquired large parcels of land to construct their trainyards in the country's major cities,\footnote{123} and as technological developments allowed trains to run beneath the surface, they were left with vast holdings of unimproved land.\footnote{124} The companies then either leased or sold the adjoining airspace to others for commercial development while retaining ownership of the underlying fee.\footnote{125} When disputes arose concerning particular aspects of these transactions, such as demands for accounting of profits and rents, the courts solved them without questioning the validity of the transactions themselves or the legal recognition of airspace.\footnote{126} The courts' approval of these transactions thereby tacitly affirmed the concept that air and land could exist as separable property for development purposes and the practice of treating airspace as property to facilitate urban development became widespread. By 1967, one au-

\footnote{120} The vested rights doctrine, for example, may be invoked to protect a property owner's right to develop his land if he has obtained certain building permits, made irrevocable expenditures, or begun actual construction. See Cunningham & Kremer, Vested Rights, Estoppel, and the Land Development Process, 29 Hastings L.J. 625 (1978).

\footnote{121} See supra notes 77-85 and accompanying text.

\footnote{122} See R. Wright, supra note 63, at 223-37. Railroads also played a significant role in the public use aspect of takings law. See supra note 22.

\footnote{123} R. Wright, supra note 63, at 224.


\footnote{125} Id. Railroads were not alone in the separate development of airspace. The 11.7 acres under New York City's Rockefeller Center were, for example, owned by Columbia University which leased the rights to develop the airspace for more than 150 years. In 1985 the university agreed to sell the land for $400 million to the Rockefeller family who, though owning the buildings located on the site, had rented the land beneath them for more than 50 years. Dowd, Columbia Is to Get $400 Million in Rockefeller Center Land Sale, N.Y. Times, Feb. 6, 1985, at Al, col. 3.

\footnote{126} E.g., Phoenix Ins. Co. v. New York & H.R.R., 59 F.2d 962, 963 (2d Cir.) (suit for accounting on rents and profits obtained from "improvements above the surface by commercial structures"), cert. denied, 287 U.S. 645 (1932).
thor noted forty examples of such projects in New York City and Chicago alone, and more than thirty others in towns and cities as diverse as Ada, Oklahoma and Cleveland, Ohio.

Another of the factors contributing to the expectations surrounding airspace finds its seeds in the late 1960's when urban planners conceived of another use for bifurcated development: as a means of preserving valuable historic buildings without expending scarce municipal funds for their acquisition. The transferable development right ("TDR") was created by these urban planners to allow undeveloped airspace above such buildings to be constructively transferred elsewhere for development.

---

127 R. Wright, supra note 63, at 261-64. Professor Wright's list was, admittedly, not exhaustive. See supra note 125.

128 R. Wright, supra note 63, at 265-68.

129 In 1968 New York City amended its landmark preservation law to allow owners of designated landmark sites to transfer the unused airspace (development rights) to designated receiving lots. New York, N.Y., Zoning Res. art. VII, ch. 4, §§ 74-79 to -793 [all references herein to the New York City Zoning Resolution are to the Comprehensive Amendment of the Zoning Resolution adopted by the Board of Estimate, effective 1961, and as amended through 1985].

Although some criticized New York's law as overly restrictive, its basic approach—aiding cities in their efforts to preserve historical buildings—was embraced by legal and planning communities throughout the country. See, e.g., Costonis, The Chicago Plan: Incentive Zoning and the Preservation of Urban Landmarks, 85 Harv. L. Rev. 574 (1972). Professor Costonis proposed a more liberal mechanism—a TDR bank—the use of which would permit the owners of TDR's to use their rights more freely. Id. at 589-91.

For a thorough description of the history of New York's landmark law, see Marcus, supra note 43, at 736-38; see also Rangel, City Procedures on Landmarks to be Reviewed, N.Y. Times, Feb. 26, 1984, at B4, col. 3 (reporting the creation of a committee to explore problems that have arisen in administering the law and possible solutions for the future).

130 The mechanics of the TDR can be demonstrated by taking the New York City method as an example.

In New York City the zoning resolution sets the maximum height for buildings according to the size of the tract on which the building will stand. See New York, N.Y., Zoning Res. art. I, ch. 2, § 12-10. The city is also divided into districts, each of which is assigned an index number called the Floor Area Ratio ("FAR") which "is the total floor area on a zoning lot, divided by the lot area of that zoning lot," id. at 21 (emphasis omitted), which "may or may not coincide with a lot as shown on the official tax map of the City of New York, or any recorded subdivision plat or deed," id. at 48. The FAR is selected to reflect planning considerations such as the availability of light and air, capacity of city services, and population density. The FAR is multiplied by the lot area of the parcel to produce a number representing the amount of usable floorspace that is permitted to be built upon the lot. New York, N.Y., Zoning Res. art. I, ch. 2, § 12-10, at 21. Thus, where each of two adjoining lots, containing 10,000 square feet, is located in a district with a FAR of 10, each lot is capable of supporting 100,000 square feet of floorspace.

In the case of most historic buildings, the maximum amount of floorspace has not been developed and the owner is left with an underdeveloped parcel. For example, the parcel containing Grand Central Terminal, has an FAR of 2 where the allowable FAR is 18. Marcus, supra note 43, at 737 n.24. To prevent the owner of a landmark building from altering, or even destroying, the landmark in order to extract the land's maximum value, the city allows him to constructively "transfer" the unused potential floorspace—the TDR—to a designated receiv-
From the start, authorities differed on the best way to use the TDR, but most agreed its benefits outweighed its liabilities. Some commentators thought that the TDR represented a legislative solution to the takings question by providing compensation for takings effected by restrictions placed on private property. However, the TDR may also be viewed as a legislative affirmation of the protectable rights which attach to airspace. As such, the TDR is not compensation; it represents the acknowledged value of airspace by assuring its holders of continued control over the value flowing from the exercise of the rights attaching to the airspace despite the holder's inability to physically occupy that space.

Indeed, the TDR is now used to extract extra value from all land, not only the sites of historic buildings, and several states have enacted legislation governing the development of airspace. Municipalities have even begun to use the TDR for their own benefit by selling or leasing the airspace above publicly-owned, underdeveloped land to private developers.

---

131 E.g., Costonis, supra note 129 (advocating use of a TDR bank as an aid in the preservation of urban landmarks).
132 See supra text accompanying notes 19-37.
133 E.g., Costonis, supra note 37. Professor Costonis argued that the TDR represented acknowledgment of the accommodation power he advocated as a form of "fair" compensation. Costonis, supra note 37, at 1065. His approach was criticized in Berger, The Accommodation Power in Land Use Controversies: A Reply to Professor Costonis, 76 Colum. L. Rev. 799 (1976); Note, The Unconstitutionality of Transferable Development Rights, 84 Yale L.J. 1101 (1975) and more recently in R. Epstein, supra note 28, at 188-90. The Supreme Court did not decide the issue. See infra notes 139-54 and accompanying text.
134 See supra note 130.
135 For example, the use of TDR's has been proposed to reduce the temptations influencing farmers to convert their land at the urban fringes to nonagricultural uses. Torres, Helping Farmers and Saving Farmland, 37 Okla. L. Rev. 31, 34 (1984). Professor Torres suggests that careful assessment of the "agricultural infrastructure" along with the creation of designated development zones will allow farmers to continue farming and, at the same time, to realize the development potential of their land. Id. at 47-50.
137 Revenues from the sale as well as the taxes paid by private developers are luring many
At the root of this activity lies the urban landowner's belief that the expectations surrounding airspace—especially where TDR's are available—are property to the same extent as the expectations surrounding more conventional types of real estate. However, the only Supreme Court case to examine airspace and TDR's in a takings context did not adopt this view.

IV. AIRSPACE AND URBAN DEVELOPMENT: Penn Central Transportation Co. v. New York City

The only Supreme Court case to examine airspace and TDR's in the context of a takings challenge was Penn Central Transportation Co. v. New York City in which the validity of the New York City Municipal Landmarks Law designating Grand Central Station a

municipalities into the field. New York City is only one among several cities that have looked to the TDR as a means of increasing revenues. Schnidman & Roberts, supra note 136. New York City's plan to sell air rights on a large scale was first announced in 1980, and by 1982 owners of property adjoining city-owned real estate were invited to negotiate with the city for the purchase of the airspace. Id. at 355-56. However, the plan was not free from controversy. See Dunlap, City's Plan to Sell Air Rights At Landmarks Draws Critics, N.Y Times, Aug. 26, 1984, § 1 at 51, col. 1.

Municipal use of TDR's need not be confined to dense urban areas. See, e.g., Torres, supra note 135; Comment, Condominiums in Downtown Public Parking Lot Air Rights: A Creative City Planning Tool, 23 Santa Clara L. Rev. 607 (1983) (urging municipal sale of air rights by small California communities).

Although one article defines air rights "like mineral easements [and thus] only a partial interest in real property," Morris, Air Rights are "Fertile Soil," 1 Urb. Law. 247, 248 (1969) (emphasis added). Although one article defines air rights "like mineral easements [and thus] only a partial interest in real property," Schnidman & Roberts, supra note 136, at 348, the former description of air rights/airspace is the one adopted by The Model Airspace Act which is substantially similar to that adopted by the state of Oklahoma. See Okla. Stat. Ann. tit. 60, § 801, 803 (West Supp. 1985-1986); see also R. Wright, supra note 63 (advocating the same formulation as the one adopted by the Model Airspace Act).

This expectation about airspace has generated scholarship addressing legal issues such as conveying and taxing which are traditionally associated with conventional property law. See, e.g., Note, Conveyance and Taxation of Air Rights, 64 Colum. L. Rev. 338, 354 (1964); Comment, The Federal Income Tax Consequences of Commercial Conveyances of Rights in Airspace, 47 J. of Air L. & Com. 91 (1981).


By 8-A § 205-1.0 (1976). The ordinance was promulgated pursuant to the state's enabling act, N.Y. Gen. Mun. Law § 96-a (McKinney 1977), which declares as state policy the preservation of individual buildings and areas with historical value. It also authorizes local governments to pass reasonable restrictions to effect that policy. New York City's ordinance specifically declares as its purposes:

(a) the protection, enhancement and perpetuation of such improvements and landscape features and of districts which represent or reflect elements of the city's cultural, social, economic, political and architectural history;
(b) safeguard the city's historic, aesthetic and cultural heritage . . .
(c) stabilize and improve property values in such districts;
(d) foster civic pride in the beauty and noble accomplishments of the past;
historical landmark was challenged by the station’s owner. After the city designated the station a landmark, Penn Central and UGP Properties entered into a lease agreement which provided for the construction of a multistory office building to be perched above the terminal. As required by the ordinance, Penn Central and UGP submitted architectural plans for the proposed building to the Landmarks Commission. The plans were rejected, and Penn Central filed suit against the city.

Penn Central claimed that the application of the law took the “air rights”—the space above the terminal—without just compensation. Rejecting the claim, Justice Brennan wrote:

“Taking” jurisprudence does not divide a single parcel into discrete segments and attempt to determine whether rights in a particular segment have been entirely abrogated. In deciding whether a particular governmental action has effected a taking, this Court focuses rather both on the character of the action and on the nature and extent of the interference with rights in the parcel as a whole...

Brennan proceeded to analyze the landmark designation not as an interference with the airspace, but rather as an interference with the underlying land. He explained that because the site had been used as a terminal for more than sixty years, it would be presumed that the primary expectation attaching to the site was bound up with the continued use of the terminal. Accordingly, he reasoned, the air rights could not be found to have been taken unless the plaintiffs suffered harm through an adverse effect on the terminal itself.


(e) protect and enhance the city’s attractions to tourists and visitors and the support and stimulus to business and industry thereby provided;
(f) strengthen the economy of the city; and
(g) promote the use of historic districts, landmarks, interior landmarks and scenic landmarks for the education, pleasure and welfare of the people of the city.

New York, N.Y., Admin. Code, ch. 8-A, § 207-5.0 (1976), the Landmarks Preservation Commission reviews all plans for proposed alteration or destruction of designated landmarks. The commission rejected two sets of architectural plans submitted by Penn Central. Both designs were the work of the well-known architect Marcel Breuer who is widely credited with the design of a tubular chrome and wicker chair which has been widely copied, produced, and sold.

Penn Central also claimed that the ordinance deprived it of its property without due process of law. Multiple claims are common. See supra note 7.

438 U.S. at 130-31.

Id. at 136.

Id.
In support of his analysis Brennan cited three cases—Welch v. Swasey,\(^\text{149}\) Gorieb v. Fox,\(^\text{150}\) and Goldblatt v. Town of Hempstead\(^\text{151}\)—as standing together for the proposition that neither air, lateral, nor subjacent rights could be separated from each other for takings purposes.\(^\text{152}\) Brennan wrote:

These cases dispose of any contention that might be based on Penn-
that full use of air rights is so bound up with the investment-backed expectations of appellants that governmental deprivation of these rights invariably—i.e., irrespective of the impact of the restriction on the value of the parcel as a whole—constitutes a "taking."\footnote{153}

This language suggests that 	extit{Penn Central} all but overrules 	extit{Mahon}, at least so far as 	extit{Mahon}'s holding applies in the context of urban development. In fact, Brennan's opinion bears a remarkable similarity to Brandeis' dissent in 	extit{Mahon}.\footnote{154}

In effect, Brennan turned the clock back: although he used the "too far" analysis developed by Justice Holmes in 	extit{Mahon},\footnote{155} he applied the test only to "property" that seemed to fall within the older, more formalistic conception.\footnote{156} Because the right to develop airspace does not fall within that traditional formulation, Brennan concentrated his analysis on the land and asked, "What has been retained?" not "What has been taken?"\footnote{157} Focusing his attention on the regulation's effect on the underlying land—the terminal—Brennan analyzed that effect according to the criteria set forth in 	extit{Causby}.\footnote{158}

But the city had made the airspace transferable through the

\footnote{153}{438 U.S. at 130 n.27 (citation omitted).}

\footnote{154}{Justice Brandeis wrote:}

\footnote{155}{[W]e should compare [the value of the coal kept in place by the restriction] with the value of all other parts of the land. That is, with the value not of the coal alone, but with the value of the whole property. The rights of an owner as against the public are not increased by dividing the interests in his property into surface and subsoil. The sum of the rights in the parts can not be greater than the rights in the whole. 	extit{Mahon}, 260 U.S. at 419 (Brandeis, J., dissenting).}

\footnote{156}{"[T]he submission that appellants may establish a 'taking' simply by showing that they have been denied the ability to exploit a property interest that they heretofore had believed was available for development is quite simply untenable." Id. at 130.}

\footnote{157}{This position is sharply criticized by Professor Epstein:}

\footnote{158}{438 U.S. at 136; see supra notes 89-98. The Court also relied on Miller v. Schoene, 276 U.S. 272 (1928); Hadacheck v. Sebastian, 239 U.S. 394 (1915); and 	extit{Goldblatt}—none of which concerned the divisibility of property interests. See supra note 152.}
TDR mechanism.\textsuperscript{159} If the Court had viewed the TDR's as representing a legislative affirmation of rights attaching to airspace,\textsuperscript{160} then although the terminal owner was prevented from physically occupying the space located above the building, there still would have been no taking. He was permitted to retain the value flowing from the exercise of other rights attaching to the airspace—for example, use and transferability.\textsuperscript{161} Because both the majority and dissent seemed to believe that the TDR's were intended to provide a form of compensation, this result was not reached in either opinion.\textsuperscript{162}

Brennan refrained from deciding whether the TDR represented just compensation because he found that no taking occurred; he merely commented that the value of the airspace for development purposes apart from the terminal was sufficient to mitigate whatever financial burdens were imposed upon the terminal's owner.\textsuperscript{163} Implicit in this finding is a recognition that certain rights associated with protectable property\textsuperscript{164} are attributable to airspace—a notion that is in keeping with the modern concept of dephysicalized property. This recognition, however, highlights the inconsistency of Brennan's analysis. As he acknowledged the value of the airspace\textsuperscript{165} (and the terminal owner’s ability to control that value once the airspace is made transferable through the operation of the TDR), he described essential sticks in the bundle of rights that comprise the modern notion of property. Why then the reluctance to incorporate this notion into his takings analysis?

The answer lies partially in the Court's reliance on \textit{Causby},

\begin{itemize}
  \item \textsuperscript{159} Supra note 129; see supra note 130.
  \item \textsuperscript{160} See supra text accompanying notes 132-34.
  \item \textsuperscript{161} See supra note 130.
  \item \textsuperscript{162} Although Justice Rehnquist, writing for the dissent, viewed the “air rights” as property for fifth amendment purposes, 438 U.S. at 142-43 (Rehnquist, J., dissenting), he found that the landmarks law denied the owner all value flowing from those rights, id. at 149 n.13. Thus, finding a taking, Rehnquist analyzed the TDR to determine whether it represented just compensation. Id. at 150-52. See supra notes 132-37, and accompanying text.
  \item \textsuperscript{163} 438 U.S. at 137.
  \item \textsuperscript{164} See supra notes 27-30 and accompanying text.
  \item Before \textit{Penn Central} reached the New York Court of Appeals, that court had confronted the TDR on other occasions. E.g., Lutheran Church in Am. v. City of New York, 35 N.Y.2d 121, 316 N.E.2d 305, 359 N.Y.S.2d 7 (1974); Newport Assoc. v. Solow, 30 N.Y.2d 263, 283 N.E.2d 600, 332 N.Y.S.2d 617 (1972). Judge Breitel, who wrote the court of appeals opinion in \textit{Penn Central} to which Justice Brennan deferred, had in \textit{Newport} described the TDR as a “valuable asset.” 30 N.Y.2d at 268, 283 N.E.2d at 602, 332 N.Y.S.2d at 621 (Breitel, J., concurring).
\end{itemize}
which as noted above,\textsuperscript{166} did not require an examination of the airspace apart from the land. It also lies in what may be described as a traditional unwillingness to treat airspace as property for fifth amendment purposes.\textsuperscript{167} Such treatment of airspace is inconsistent with courts' treatment of land in similar circumstances. Where, for example, landowners challenged zoning ordinances as taking a portion of a parcel of land, courts generally have been willing to analyze the ordinance's effect on a section-by-section basis.\textsuperscript{168}

The disparate treatment of airspace is highlighted by a recent Ninth Circuit case, \textit{American Savings & Loan Association v. County of Marin.}\textsuperscript{169} Although the court rejected the notion that as a matter of law a parcel must be considered as a single unit for takings purposes,\textsuperscript{170} it distinguished \textit{Penn Central} because it believed that the "challenged government action [in \textit{Penn Central}] had not divided the property into discrete segments and the court refused to do so."\textsuperscript{171} In the Ninth Circuit case, the parcel under consideration consisted of a point of land surrounding San Francisco Bay and a spit of land extending into it. The plaintiff claimed that because the zoning ordinance had a more restrictive effect on the spit than on the point, it effected a taking of the spit.\textsuperscript{172} The court did not decide the merits of the takings question, but remanded for a determination of "whether the challenged ordinance creates two separate parcels for takings purposes."\textsuperscript{173} The court held that the determination was a factual question whose answer relied in large part on whether the sections were treated differently under the plaintiff's own development plan.\textsuperscript{174}

Despite some courts' willingness to separate property for takings purposes and despite its own recognition of the legal existence of the TDR's, the \textit{Penn Central} Court continued to analyze the takings claim in terms of the land.\textsuperscript{175} Had the Court carried its analysis of the

\begin{itemize}
\item\textsuperscript{166} Supra notes 83-91 and accompanying text.
\item\textsuperscript{167} See supra note 157 and accompanying text.
\item\textsuperscript{168} E.g., Nectow v. City of Cambridge, 277 U.S. 183 (1928); American Sav. & Loan Ass'n v. County of Marin, 653 F.2d 364 (9th Cir. 1981); Fifth Ave. Corp. v. Washington County, 282 Or. 591, 581 P.2d 50 (1978) (en banc); Miller v. City of Beaver Falls, 368 Pa. 189, 82 A.2d 34 (1951).
\item\textsuperscript{169} 653 F.2d 364 (9th Cir. 1981).
\item\textsuperscript{170} Id. at 369.
\item\textsuperscript{171} Id. at 369-70.
\item\textsuperscript{172} Id. at 371.
\item\textsuperscript{173} Id. at 370.
\item\textsuperscript{174} Id. at 371. The concurrence went even further and suggested several additional factors the district court might consider in making its determination. They included the geological history and physical characteristics of the spit as well as the county's historical treatment of the area. Id. at 373 (concurring opinion).
\item\textsuperscript{175} 438 U.S. at 137.
\end{itemize}
TDR’s further, it would have found that the incidents of ownership secured by the TDR’s compelled an examination of the takings claim with respect to the airspace rather than with respect to the land. It would have seen that the landmark status of the terminal did not disturb those incidents of ownership because they remained in the hands of the plaintiff.\textsuperscript{176} Thus the Court would have achieved the same result and at the same time extended the fifth amendment’s protection to airspace in the form of the TDR.

\section*{V. Looking Ahead}

A reexamination of the nature of property rights discussed above\textsuperscript{177} is useful here. The legal rights that define the scope of property ownership—possession, exclusion, alienation, use, management, economic gain, consumption, and immunity from expropriation\textsuperscript{178}—are applicable to intangibles. By identifying these incidents of ownership, courts may protect interests whose status within the scope of property rights may have been, in an earlier time, somewhat uncertain. As state and local governments create and define TDR’s in terms of the fixed boundaries of the underlying land, they are quantifying the airspace and giving the landowner not only the right to exclude others from it, but also the exclusive right to use and retain its income. Yet, takings law continues to disregard the owner’s right to immunity from expropriation of the airspace.\textsuperscript{179}

This is not to suggest that every new height restriction or zoning amendment would operate to take property without just compensation. Rather, fifth amendment protection of airspace would require courts to examine the effect of the government’s action on airspace independent of any effect the action may have on the underlying land. Thus, where a height restriction or other government action has the effect of limiting a landowner’s ability to make use of his airspace, courts should ask whether extrajudicial factors created any reasonable preexisting expectations with respect to that airspace.\textsuperscript{180} Courts would then be in a position to inquire whether the government action altered those expectations before they examined whether the government action altered any expectations attaching to the land.

For example, an urban developer might purchase TDR’s to con-
struct a large-scale project. If, subsequently, a government regulation is passed which has the effect of denying him the ability to use the TDR's, the developer would be able to argue that the entire value of the acquired property had been destroyed. Such a case would fall squarely within the scope of Mahon; just as the coal company lost the entire value of its subterranean rights, the urban developer has lost the entire value of his airspace.

Some may argue that this approach would unduly burden governments' ability to advance important policy objectives through zoning or landmark protection, but this need not be the case. When a government creates the TDR, it expresses a policy about development which has the effect of not only enabling owners to treat airspace as severable from land, but also encouraging them to do so. Courts should therefore pay deference to such propertyowners who, by acquiring TDR's are acting in accordance with that policy.

Answers to the following questions may serve as a guide to a judicial inquiry of this sort: How has the jurisdiction historically treated airspace? Is the jurisdiction one in which the airspace is cloaked in the legal trappings of property? If so, what sorts of expectations attach to the airspace? Are those expectations altered as a result of the regulation? Does the owner maintain control over those expectations? Does the regulation completely destroy their value? Only when satisfied that the owner maintains control over the value flowing from those expectations should the challenged regulation be permitted to stand.

Propertyowners and cities alike stand to benefit from the measure of predictability that would be afforded by this approach. By extending the full protection of the fifth amendment to airspace in these circumstances, both parties would be encouraged to continue to use it in new and creative ways. Adoption of this approach would also continue the trend toward a flexible concept of property that respects the rights of private property owners without sacrificing the state's interest in promoting the public welfare.

CONCLUSION

Valid historical reasons may have existed for the courts' placement of airspace outside the scope of traditional property law. However, in light of developments in the law of property and advancements in the field of urban planning, courts must refine their

---

181 See, e.g., Sterk, supra note 7.
182 See supra note 174.
definition of property to include airspace. When faced with takings challenges involving airspace, courts should consider the circumstances giving rise to the expectation that airspace should be protected. This approach would provide that expectation with the legal protection it deserves and simplify one of the more troublesome aspects of takings jurisprudence.

Mary B. Spector