

# Rights of the Private Landowner As Against Artificial Rainmakers

Paul Binzak

Richard P. Buellesbach

Irving W. Zirbel

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### Repository Citation

Paul Binzak, Richard P. Buellesbach, and Irving W. Zirbel, *Rights of the Private Landowner As Against Artificial Rainmakers*, 34 Marq. L. Rev. 262 (1951).

Available at: <http://scholarship.law.marquette.edu/mulr/vol34/iss4/4>

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# COMMENTS

## RIGHTS OF PRIVATE LAND OWNERS AS AGAINST ARTIFICIAL RAIN MAKERS

Recent reports from the Southwest indicate that landowners in that area have realized millions of dollars worth of agricultural benefits from an intensive program of artificial rainmaking. From an economic point of view this might indicate a new era of great prosperity, but the question immediately presents itself, are those private individuals who are engaged in this "rainmaking" program depriving their neighbors of their normal rainfall, and if so, what rights do these neighbors have? If, of course, science progresses to the point where it can generate artificially more rain than that produced naturally, and leave unchanged the normal precipitation in surrounding areas, then it would seem there is no problem since no one is damaged. But the problem considered in this article is limited to the present phase of the art of rainmaking where it appears that in order to produce artificially more rainfall on one man's land it is necessary to reduce the rainfall on someone else's land; more specifically, if the owner of Blackacre, by seeding the clouds passing over his land, reduces the amount of rain which would normally fall on Whiteacre, what right in the owner of Whiteacre, if any, has been violated by such activity?

### I

The first problem presented is whether or not a landowner has any rights in the clouds passing over his land, and the resulting natural rainfall. This question, although a somewhat novel in the field of law, requires for its understanding, a consideration of the basic principles of property law.

Although the terms "ownership" and "property" have been the subjects of varying definitions beginning from the time when the law first recognized the reducing of an object out of the common mass to private control, it is generally recognized today that any definition of property must include the idea that property is not the object itself, but rather the rights a person has in such object.<sup>1</sup> The same idea is perhaps better contained in the concept of ownership:

"The essence of ownership is generally held to be legal control over a thing in all its connections."<sup>2</sup>

Some writers have popularly referred to ownership as the "bundle of rights which a person has in a thing."<sup>3</sup>

<sup>1</sup> Thompson, Real Property, §40 (Perm. ed. 1939).

<sup>2</sup> *Supra*, note 1.

<sup>3</sup> Brown, Personal Property, §5 (1936).

Ownership, then, consists of rights or interests in a thing. These rights which a person has as an owner can be categorically summarized as: first, the right of exclusive possession; second, the right of use; third, the right of disposition. These rights are universally recognized by all leading authorities.<sup>4</sup> Furthermore these rights are not only essential to ownership, but are considered property interests in themselves, and within the protection of the Constitution.<sup>5</sup>

One court in considering the right of a city to deprive a landowner of the use of his property without compensation, said that of the rights a person has in an object, the most essential and beneficial right is his right to use.<sup>6</sup> It is only natural that the right of use should be the most essential attribute of property for without the right of use the owner would have nothing but barren legal title. The courts have recognized the value of this right, and in order to insure its proper exercise have developed certain additional rights which a person has naturally as a landowner to secure in full this right of use. These complementary rights can be summarized briefly as: one, riparian rights; two, right to support, both lateral and subjacent; three, right to natural diffusion of air; and four, right to natural drainage.

It is apparent that the reason these complementary rights were developed was to secure to the landowner the use of his land in its natural state, without interference by his neighbors. A closer examination of the nature of these rights reveals that they relate generally to the natural elements nature places on the surface, illustrating the fact that the law recognizes that ownership of land encompasses more than the mere right of occupancy. The right of occupancy without the right of use is valueless. The right of use without the right to use the land in its natural condition is even more valueless under certain conditions.

Courts have held that the right to use land in its natural state exists *jurae naturae*. For example the court in *Indianapolis Water Company v. American Strawboard Company*<sup>7</sup> in considering the right of a riparian owner to have a stream flow by in its natural state said:

"It has been well said that the rights of a riparian proprietor, so far as they relate to any natural stream, exist *jurae naturae*, because his land has by nature the advantage of being washed by the stream; and as the facts of nature constitute

<sup>4</sup> Boothby v. City of Westbrook, 138 Me. 117, 23A (2d) 316 (1941); Thompson, *supra*, note 1, §41; 42 Am. Jur., Property, §2, 40 (1942).

<sup>5</sup> Terrance v. Thompson, 263 U.S. 197, 44 S. Ct. 15 (1923).

<sup>6</sup> City of St. Louis v. Hill, 116 Mo. 527, 22 S. W. 861 (1893).

<sup>7</sup> 53 F. 970, 974 (1893).

the foundation of the right, the law should recognize and follow the course of nature in every part of the same stream."

The court then went on to point out that it is not the ownership of the bed of the river which is the basis of the right, but rather the fact that due to the situation of the land the landowner receives natural benefits from the stream, and it is these benefits which give the landowner the right to insist that the stream flow as it is wont by nature to flow.

This principle that the court will protect the landowner in the natural use of his land, and preserve to him the natural benefits of his land, is borne out by the cases involving the right to natural support, to natural diffusion of air, to natural drainage, and to riparian rights.<sup>8</sup>

Following these basic principles of property law, the courts might very easily conclude that natural precipitation is one of the rights in that 'bundle of rights' which the court will protect as essential to the use and enjoyment of one's own land. Such a holding would at least protect a landowner from the consequences of his neighbor's unlimited rain-making experiments.

However, in the one reported case,<sup>9</sup> this theory does not seem to be recognized, as is evidenced by the language of the court:

"Apart from the legal defects in plaintiff's suit (*since they clearly have no vested property rights in the clouds or the moisture therein*), the factual situation fails to demonstrate any possible irreparable injury to plaintiff."

The opinion also states:

"Since plaintiffs have shown neither a factual nor legal basis for the drastic relief they seek, the motion for a temporary injunction is denied."

It is to be noted, however, that the problem involved in this case was a threatened trespass action, and that the defendants represented the entire city of New York, suffering at that time from a serious drought. Prescinding for a moment from the nature of the action and the policy arguments involved, the court offers no substantial reason for its parenthetical statement that a property owner has "no vested property rights in the clouds or the moisture therein." Indeed it is not at all clear just what the court means by its statement, for while it is true that a landowner has no vested property right in the moisture or clouds while over another man's land, it does not necessarily follow that he has no rights whatso-

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<sup>8</sup> 3 Tiffany, Real Property, sec. 714 (3rd ed. 1939).

<sup>9</sup> Slutsky v. City of New York, 97 N. Y. Supp. (2d) 238 (1950).

ever to the natural benefits which will accrue to him from the normal rainfall. This distinction can be found in the law governing the rights of a riparian owner; while such an owner has no vested property right in the water itself while it is passing over his neighbor's land, he does have a right to the benefits of that 'as it is wont to flow.'<sup>10</sup> Thus the *Slutsky* case, while making a rather categorical statement regarding the rights of property owners in the clouds overhead, actually throws little light upon the problem involved.

Another more plausible argument based upon property concepts, whereby one could justify his interference with the passage of clouds over his land, would be to assert title to all the airspace above his land, by virtue of his ownership of the underlying soil. This theory is a literal application of the ancient maxim, "cujus est solum est usque ad coelum," (loosely, he who owns the soil also owns to the sky.) Ownership of the surrounding airspace would thus give to the landowner ownership of the clouds resting upon or in this "realty."

But a literal application of the *ad coelum* doctrine is not only a perversion of the true meaning of the doctrine but is also in utter disregard of precedent, and in direct conflict with present day decisions. Being phrased and conveyed in Latin, the maxim is popularly thought to have been a part of the Roman Law, although it is commonly held among authorities today that it never was a part of that law at all, but was the work of one Accursius, a commentator on Roman Law, who inserted it in the margin of his comments, using it in reference to the right of owners of burial plots to have such land free from overhanging buildings. But even if it were a part of the Roman Law, an examination of good Latin reveals that in Latin the maxim does not mean what those seeking its literal application contend it means. The maxim says that the landowner owns *up to* the *coelum*, not that he owns the *coelum*, 'ad' in Latin meaning 'to.' And further, as to the meaning of the word '*coelum*' the District Court in *Sweetland v. Curtiss Airports Corporation*,<sup>11</sup> in considering the rights of a landowner in airspace in connection with an action for an injunction against a flying school, said:

"Apparently, therefore, according to good Latin usage, the *coelum* was a space which began only a short distance above the surface of the earth. One Latin scholar described it as the space lying only a little above the highest tree tops and building."

A knowledge of the true meaning of the maxim is valueless, however, unless it is followed in that meaning by the courts, for

<sup>10</sup> *Infra*, note 118.

<sup>11</sup> 41 F. (2d) 929 (1930).

a maxim is law only to the extent to which it has been applied in adjudicated cases. Furthermore, the maxim should be taken from the law, not the law from the maxim.

Recognizing these principles, Hackly, in an article entitled, *Trespassers in the Sky*,<sup>12</sup> examined the English decisions dealing with maxim, attempting to find a basis therein to support claims of ownership to unrestricted heights, and concluded:

"It hardly seems necessary to point out that none of them (cases) may be properly regarded as authority for ownership of space in the vicinity of the clouds."

"Apparently no one now seriously advocates a literal interpretation of Lord Coke's maxim. Even before the airplane it was characterized by an English Court (*Wandsworth Board of Water Works v. United Telephone Co.*, 13 Q.B.D. 904, 53 L.J. Q.B. 449) as a fanciful phrase which had never had been the law at all."

In a companion analysis of American decisions, the author says:

"In regard to these decisions, two things stand out. First, whenever the maxim has been construed or explained, it has generally been regarded as a rule for the full enjoyment of one's land, and not as a rule for the ownership of space as such. Second, in no case has the actual decision been that private ownership of space exists at such a high altitude above the surface as that usually flown by airplanes, no matter how broad and sweeping may have been the court's language."

In as much as the claim of unbounded ownership of airspace is unsupported in history or precedent, it remains to be seen whether there is any support in present day decisions. With the advent of the airplane came the first litigation involving assertions of ownership of airspace above very limited heights. The courts at this time rejected the *ad coelum* doctrine first, as being unsound and contrary to elementary legal principles of property, and second, as not being an adequate answer to the social and economic needs of the times.<sup>13</sup>

A literal application of the *ad coelum* maxim might find some basis in the wording of the Uniform Aeronautics Act approved in 1922, section 3:

"Ownership of Space—The ownership of the space above the lands and waters of this State is declared to be vested in

<sup>12</sup> 21 Minn. L. Rev. 775 (1932).

<sup>13</sup> *Swetland v. Curtiss Airports Corporation*, 55 F. (2d) 201 (C. A. 6th, 1932), modifying on appeal 41 F. (2d) 929 (1930). An even more vehement rejection of the maxim is found in *Hinman v. Air Transport*, 84 F. (2d) 755, cert. denied 57 S. Ct. 431 (1937).

the several owners of the surface beneath, subject to the right of flight described in Section 4."<sup>14</sup>

But the Supreme Court of Georgia<sup>15</sup> held that the flight of an aircraft over the land of another is not a trespass per se in spite of the fact that there were present in the Georgia Civil Code certain sections similar to this provision in that it declared that the rights of an owner of land extend downward and upward indefinitely, and which gave him a right of action for interference therewith. The court said that the upper airspace which is beyond possible possession by the occupant below is free territory. The court went on to say:

"But even if the Code was intended to express the *ad coelum* theory in its entirety, and this we assume in the present case, it remains true that the maxim can have only such legal significance as it brings from the common law."

Since possession is the basis of all ownership, that which man can never possess would seem to be incapable of being owned. Following the literal interpretation of the maxim leads to a "*reductio ad absurdum*" for a man would have property rights where no man could exist. A landowner, therefore, under the *ad coelum* doctrine does not own airspace to any height beyond that which he might possibly possess or occupy.

A necessary adjunct to a claim of ownership of the clouds under the *ad coelum* doctrine is the consideration of the clouds as being in the nature of realty. But the most necessary element of the subject of a real property interest is that the subject of such interest be capable by its nature of exclusive possession. It is stretching the imagination to state that clouds as such are capable of this exclusive possession. Clouds floating high above the earth, of constantly changing form and mass, do not seem to be the type of object one could say he possessed as such. Factual possession of a cloud being impossible, the law should not recognize a fictitious legal possession. The foregoing can best be summarized by the simple phrase of Blackstone: "Human law must not contravene human nature."<sup>16</sup>

Thus far an attempt has been made to show that a landowner, as such, does have a property right in the natural fall of rain, at least so far as it goes to affect the use and enjoyment of his land. The exact nature of this right, and its many ramifications, present another, and perhaps more complicated problem. There are, how-

<sup>14</sup> 11 U.L.A. 160 (1938).

<sup>15</sup> Thrasher v. City of Atlanta et al, 178 Ga. 514, 173 S.E. 817 (1934).

<sup>16</sup> Cooley, Blackstone, 42.

ever, certain analogous cases and principles which may be of some assistance in arriving at the correct answer.

Anglo-American Jurisprudence has long recognized that all adjoining riparian landowners, because of their position upon a flowing body of water, are able to claim certain rights in that water. These rights have been classified as natural rights accruing to all such owners.<sup>17</sup> The early law upon this subject seems to indicate that a riparian owner, while possessing usufruct in the stream, had no right whatsoever to diminish the quantity of water which would naturally descend to his neighbor, since such diminution would deprive that neighbor of the right to have the water flow "as it is wont to flow" (*currere solebat*).<sup>18</sup> As the law developed, however, this doctrine was modified, until today riparian owners, while still regulated by the rights of other such owners, possess what is called the right of "reasonable use."<sup>19</sup>

Considering the nature of clouds, their fleeting and effervescent nature, it may be difficult to establish a physical analogy between such clouds and a definite body of water, flowing across the surface of the earth, in an exact channel.<sup>20</sup> Poetically, of course, it might be said that clouds, travelling on prevailing Westerlies, are at least somewhat in the nature of a flowing body of water, but it is quite improbable that the courts will take cognizance of any such poetic concepts.

A more forceful argument in the establishment of an analogy, can be found, perhaps, in a comparison of the origin, operation and effects of both clouds and streams. A stream, for example, is a creation of nature. In its operation, it will naturally appropriate itself; that is, a stream, without any assistance from mankind, will, by its nature, seep into the surrounding soil. This natural seepage will constitute a benefit (as opposed to a burden) to the adjoining land. These same facts can be predicated of rain clouds. Such clouds exist as a result of the forces of nature; they will naturally precipitate themselves; and they are usually considered a benefit to the underlying lands. Considering then, the origin, operation and effects of clouds and streams, and their apparent similarity,

<sup>17</sup> Tiffany, *supra*, note 8, §722; Indianapolis Water Co. v. American Strawboard Co., *supra*, note 7.

<sup>18</sup> 3 Kent, Commentaries, 439 (12th ed. edited by O. W. Holmes, Jr., 1873) Bealey v. Shaw, 6 East. 208, 214 (1805).

<sup>19</sup> Stratton v. Mt. Harmon Boys School, 216 Mass. 83, 103 N.E. 87 (1913); Weiss v. Oregon Iron & Steel Co., 13 Ore. 496, 11 P. 255 (1886).

<sup>20</sup> While most cases have required definite and distinct banks, it has been held that where a stream flows in a continuous current, the fact that the water thereof, because of the character of the land, spreads over a large area without apparent banks, does not affect its character as a water course. Miller & Sux v. Madera Canal & Irrigation Co., 155 Cal. 59, 99 P. 502 (1909).

perhaps it could be said that just as the law will protect a riparian owner from the unreasonable activities of his neighbor, so too should it protect a landowner from at least the unreasonable rain-making experiments of his fellow men.

Generically speaking, of course, it is easy to state that the law should permit a reasonable interference, but should prohibit an unreasonable interference, with the natural precipitation of rain clouds. What is reasonable and what is unreasonable, is another entirely different question.

In the case of streams, the courts, while usually speaking in terms of 'all the circumstances,' have at least laid down several qualifications of a reasonable use. A distinction is made between the ordinary or natural uses, and the extraordinary or artificial uses.<sup>21</sup> In the case of the former, a riparian owner has been allowed to use all the water, regardless of the effect it might have upon the lower proprietor, such use being considered reasonable as necessary to sustain life itself.<sup>22</sup> To determine the reasonableness of extraordinary uses, the courts have considered all the circumstances involved, noting especially the amount of water taken, the size of the stream, the effect upon other landowners, and the necessities of the one making the consumption.<sup>23</sup> In considering the problem of the amount of water taken, the courts have again restored to a generic phrase, 'material diminution.'<sup>24</sup> The existence of waste has also been considered as affecting the reasonableness or unreasonableness of a particular use.<sup>25</sup>

It is almost self-evident that it would be absurd to try to apply the above standards to the problem at hand. It may be possible to determine the needs of the one artificially causing the rain, but to determine the amount of rain taken in relation to the whole, the effect had upon other landowners, and the amount of waste, if any, involved, is almost a physical impossibility, at least in view of present day scientific knowledge.<sup>26</sup> Under these circumstances, if the stream analogy should be followed, there would appear to be good reason for the courts, at this time, to follow also the early

<sup>21</sup> Lone Tree Ditch Co. et al v. Cyclone Ditch Co. et al., 26 S.D. 307, 128 N.W. 596 (1910).

<sup>22</sup> Cf. Filbert v. Dechert, 22 Pa. Super, 362, (1903) where the court held that a stream could be drained entirely in order to supply the drinking, culinary and cleaning water for nine-hundred patients in an insane asylum. This is perhaps an exaggerated case of a natural or ordinary use.

<sup>23</sup> 2 Farnham, Water and Water Rights, 1578-9, §466 (1904).

<sup>24</sup> Diminution of one-fifth was held excessive in Weiss v. Oregon Iron & Steel Co., *supra*, note 19. Diminution of one-half was held excessive in Kimberly & Clark Co. v. Hewit et al., 79 Wis. 334, 48 N.W. 373 (1891).

<sup>25</sup> Meng v. Coffee et al., 67 Neb. 500, 93 N.W. 713, 718 (1903).

<sup>26</sup> Some courts, however, in the case of percolating waters, have not been too perturbed by similar problems. *Infra*, note 40.

development of the law on that subject, and prohibit any interference whatsoever with the natural passage of rain clouds. But even under some doctrine of reasonable use, a similar result could be achieved. In view of the possible and unknown widespread effects which any program of artificial rain-making might have upon an extended area, any interference could, with very little difficulty, be considered as unreasonable.

Of course, if we are to follow our stream analogy in all parts of the country, another problem will arise in the Western and Southwestern States, where the doctrine of absolute appropriation is in effect.<sup>27</sup> Under this doctrine, which abrogates the idea that riparian rights are natural rights, any riparian landowner may appropriate the water of an adjoining stream, regardless of the effect such appropriation might have on a lower owner, provided the appropriator does not waste any of the water, and provided that there is no interference with a prior right of appropriation.<sup>28</sup> Basically this is a theory of "first in time, first in right." It is interesting to note, however, that with one exception, all states adhering to the appropriation doctrine, have done so under some statutory or constitutional provision.<sup>29</sup> The one exception is the State of Nevada, where a judicial recognition of appropriation was subsequently affirmed by statute. These statutory or constitutional provisions declare that "all" or "certain" waters are "public waters" belonging to the state, and are subject to appropriation in that state.<sup>30</sup>

Since this doctrine has arisen as a result of the normally arid condition of the states involved, it is difficult to foretell just what course will be followed in the case of rain clouds. The imperative necessity which gave birth to unlimited appropriation is still present, and if the 'public water' statutes can be construed to include passing rain clouds (although it might be difficult to say that such was the intent of the original legislatures who passed the law) then there would seem to be no reason for prohibiting unlimited rain making experiments. Probably, however, these states will be the first to establish governmental regulation of such activities, on the grounds that public necessity demands such action.

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<sup>27</sup> Tiffany, *supra*, note 8, sec. 738; *Mettler v. Ames Realty Co.*, 61 Mont. 152, 201 P. 702 (1921).

<sup>28</sup> *1 Kinny, Irrigation & Water Rights*, 1054, (1912). *Coffin v. Left Hand Ditch Co.*, 6 Color. 443 (1882).

<sup>29</sup> Hutchins, *Selected Problems in the Law of Water Rights in the West*, (1942).

<sup>30</sup> Nevada, North Dakota, Oregon, South Dakota, Utah and Washington include "all" waters; Arizona, California, Colorado, Idaho, Nebraska, New Mexico, Texas and Wyoming include "natural water courses, natural streams and natural channels."

A second analogy which may be applied to this new field of law is the application of the law of percolating waters as found in the American decisions. It appears from an analysis of the law on this subject that at an early date the American courts,<sup>31</sup> recognizing the fact that the underground waters were a natural benefit to the land and necessary for the use and improvement of the soil, have expressed a dissatisfaction with the common law rule of absolute appropriation based on the unqualified ownership of the land extending from the surface down to the center of the earth.<sup>32</sup> This common law rule, if carried to its logical conclusion, would not give the landowner the absolute right to withdraw all the percolating waters in the vicinity but would on the other hand work a deprivation of the very right sought to be enforced. Assume that X and Y are adjoining landowners. Under the "ad coelum" doctrine referred to, X owns not only the surface land of Blackacre but that portion immediately below it to the center of the earth. But Y is in the identical position with regard to Whiteacre. Because the percolating waters would be subject to the same treatment in the eyes of the law as the soil, any withdrawal of the waters under Whiteacre by the owner of Blackacre would be a conversion by X. One solution to this situation might appear to be the acceptance of a rule which would tolerate no interference with the percolating water in any way. But this doctrine of non-action would in effect be a deprivation of property; at least that element referred to as the right to the reasonable use and enjoyment of one's property. The solution to the dilemma seems to be the acceptance of the reasonable use rule. This is the course that the majority of the states have taken.<sup>33</sup>

But even though the rule seems to be settled the controversy has remained because of some court's interpretation of reasonableness. The position of the New York court in the case of *Forbell v. City of New York*<sup>34</sup> is particularly confusing although it has been cited by many courts. While granting a perpetual injunction against the city of New York restraining it from operating a pump on its lands, the effect of which was to lower the underground water table thereby making the plaintiff's land unfit for agricultural purposes, the court went on to say:

"It is not unreasonable . . . that (the appropriator) should

<sup>31</sup> *Basset v. Salisbury Co.*, 43 N.H. 569, Am. Dec. 179 (1862).

<sup>32</sup> *Acton v. Blundell*, 12 Mees & W. 324, 152 En. Rep. 1223 (1843). (This case is authority for the Common Law rule, wherein was announced the principle which gives to the owner of the soil all that lies beneath the surface. See also 55 A.L.R. 1390.)

<sup>33</sup> *Thompson, supra*, note 1, §663.

<sup>34</sup> *Forbell v. City of New York*, 164 N.Y. 522, 58 N.E. 644, 51 L.R.A. 695, 79 Am. St. Rep. 666 (1900).

dig wells and take therefrom all the water he needs in order to get the fullest enjoyment and usefulness of his land, either for purposes of pleasure, abode, productiveness of soil, trade, manufacture, or for whatever else the land as land may serve. He may consume it, but must not discharge it to the injury of others.<sup>35</sup>

This statement has been used to apply a rule the *effect* of which is similar to that expressed in *Acton v. Blundell*,<sup>36</sup> the only limitation being that the appropriator must use all of the water he takes.<sup>37</sup>

The New York court's statement in the *Forbell*<sup>38</sup> case seems to be inconsistent with the decision reached, at least insofar as the result may be affected. That court held that one who merchandises the water is not exercising reasonable use; while one owning a factory on the land and using the percolating waters in the bottling of soda water and selling the soda water would be exercising reasonable care even though he consume all the water. In both cases the result is the same, i.e., the adjoining landowner is deprived of percolating water.

In those cases in which there is an inadequate supply the better rule is that the term "reasonable user" does not mean that one person having correlative rights in a common supply of water may take all that is reasonably beneficial to his land, regardless of the needs of others, but only his reasonable share of the supply.<sup>39</sup> While some courts, with the aid of modern scientific equipment, have overcome the problem of determining a reasonable share of an apparently unknown quantity of subterranean water,<sup>40</sup> the answer to that same problem in relation to clouds might present a more serious obstacle. Under such circumstances, the courts, rather than resort to an inequitable theory of absolute appropriation (which they seem to be rejecting), might very well follow a theory of non-action, holding in abeyance the reasonable use rule until science is able to determine, with some degree of accuracy, the amount of water which can be found in a particular cloud formation. The third analogy which may serve as a basis for a rule applicable to rainfall is that of surface waters. While the physical analogy between clouds and surface water may be difficult to establish, the only real basis of analogy should be the effect of the

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<sup>35</sup> The court granted the injunction prayed for on the grounds that the City of New York was merchandising the water and as a result was not using the water for the enjoyment and usefulness of the land.

<sup>36</sup> *Supra*, note 32.

<sup>37</sup> *Hawthorn et al. v. National Carbonic Gas Co.*, 194 N.Y. 326, 87 N.E. 504, 23 C.R.A. (N.S.) 436, 128 Am. St. Rep. 555 (1909).

<sup>38</sup> *Supra*, note 34.

<sup>39</sup> *Echel v. Springfield Tunnel & Dev. Co.*, 87 Cal. App. 617, 262 P. 425 (1928).

<sup>40</sup> *Meeker v. City of East Orange*, 77 N.J. 673, 74 A. 379 (1909).

water on the land, i.e., whether it is a detriment or a benefit to the land as land.<sup>41</sup>

In the past both the Civil Law and the Common Enemy jurisdictions regarded surface waters as a burden or a detriment to the land. Using this premise as a basis, the states invoking the Civil Law rule attempted a solution by imposing an absolute rule of non-action.<sup>42</sup> The application of the "sic utere" principle was perhaps the more equitable solution when compared to the Common Enemy rule, the practical result in the former being that a purchaser of land bought with notice of the existing terrain and with notice that his land was required to accept the burden of flowing surface waters from upper owners while having the benefit of his land naturally discharging the surface water onto the land below. The Common Enemy jurisdiction arrived at the opposite result proceeding from the same premise, allowing a landowner to rid his land of surface waters by preventing the surface waters from coming upon his land,<sup>43</sup> or by diverting the natural course of such water,<sup>44</sup> although he thereby causes injury to the adjoining landowner receiving such water. In both cases there appears to be an interference with an owner's use and enjoyment of his property.

Because of the premise (that surface water is a detriment to the land), the courts applying either rule were driven to the position that the appropriation by an upper owner could never work a hardship on the lower owner because the upper owner was ridding his neighbor of a burden. There thus arose the doctrine of unlimited appropriation of surface waters.<sup>45</sup>

In a situation involving rainfall, there is little doubt that the rain should be considered beneficial to the land. At least in those cases in which this factor is present the reason for the appropriation rule regarding surface waters should not be applied. It is an

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<sup>41</sup> The court in *Bassett v. Salisbury Co.*, *supra*, note 30, applied this test in comparing natural streams and percolating waters. "The law regulating water courses has its origin in the *benefits* and *injuries* that may arise from water. These benefits may be quite similar in cases of underground and *surface* drainage and of drainage of water courses. . . . So far as there is a similarity of benefits and injuries, there should be a similarity in the rules of law applied."

<sup>42</sup> *Miller v. Perkins*, 204 Iowa 782, 216 N.W. 27 (1927).

<sup>43</sup> *Bowlesby v. Speer*, 31 N.J.L. 354, 86 Am. Dec. 216 (1865).

<sup>44</sup> *Jessup v. Bomford Bros. Silk Mfg. Co.*, 66 N.J.L. 641, 51 A. 147, 58 L.R.A. 329, 88 Am. St. Rep. 502 (1902).

<sup>45</sup> *Tiffany*, *supra*, note 8, §744. The reason for this conclusion in the Common Enemy jurisdictions is obvious. But under the strict interpretation of the Civil Law, the dominant owner should not be allowed to appropriate the surface water to the detriment of the lower owner. This view, however, is not adopted even in those states where the Civil Law rule is applied in respect to the servitude on the lower owner.

oft quoted maxim that "no law can survive the reasons on which it is founded."<sup>46</sup>

In addition to this there is a growing tendency in the states to extend the doctrine of reasonable user to surface waters. This doctrine is embodied in the principle that "the landowner's right to obstruct or divert is limited to what is necessary in the reasonable use of his own land."<sup>47</sup> This reasonable user rule differs from the appropriation rule in that the former does not purport to lay down any absolute rule with respect to surface waters, but leaves the entire matter to be determined "upon all the facts and circumstances of the case."<sup>48</sup> Other states purporting to hold the Common Enemy doctrine have engrafted the rule with exceptions which in actual result produce decisions which could be reached under the reasonable user rule. At least one state, in order to avoid the Common Enemy rule has extended the definition of watercourses to include sizeable and periodic bodies of water having no definite bed or channel.<sup>49</sup> The Wisconsin court affirms this need for exceptions.<sup>50</sup> The result is that the upper owner does not have an unqualified right in the appropriation of these waters.

If the analogy of surface waters should be used by the court to apply a rule to the field of artificial rainmaking, it appears that this field lies within the exceptions to the Common Enemy rule (and the Civil Law rule as far as the doctrine of appropriation is concerned). This conclusion is based upon the premise that the rainwater is beneficial to the land. Once this is ascertained the courts might very well hesitate to apply a rule of absolute appropriation, "The simple plan; that they should take who have the power and they should keep who can."<sup>51</sup>

The courts upon further consideration of the extraordinary effects which might result from an intensive program of rainmaking may very reasonably conclude, as indicated earlier in this article, that *any* interference, by private individuals with the forces of nature, would be unreasonable in view of the embryonic stage in which the art of rainmaking exists at this time.<sup>52</sup>

<sup>46</sup> *Katz v. Walkenshaw*, 114 Cal. 116, 70 P. 663, 74 P. 766, 64 L.R.A. 236, 99 Am. St. Rep. 35 (1903).

<sup>47</sup> *Swett v. Cutts*, 50 N.H. 439, 9 Am. Rep. 276 (1870).

<sup>48</sup> *Ibid.*

<sup>49</sup> *Hoeffts v. Short*, 114 Tex. 501, 273 S.W. 785, 40 A.L.R. 883 (1871).

<sup>50</sup> *Hoyt & another v. City of Hudson*, 27 Wis. 656, 9 Am. Rep. 473 (1871). "Nor should the court be understood as deciding that the right of a landowner to obstruct or divert the natural flow of surface water is without limit or qualification by what may be necessary in the *reasonable use* and improvement of his own land."

<sup>51</sup> *Supra*, note 40.

<sup>52</sup> Another analogy, that of animals *ferrae naturae*, has been suggested in 1 Stanford L. Rev. 43 (1948). While such an analogy might lend support to a rule

## CONCLUSION

Considering the property right of every man to the use and enjoyment of his land, and considering the profound effect which natural rainfall has upon the realization of this right, it would appear that the benefits of natural rainfall should come within the scope of judicial protection, and a duty should be imposed on adjoining landowners not to interfere therewith. In the foregoing discussion an attempt has been made to resolve the problem of when the duty is breached and the right violated. By various analogies the scope of the duty in related fields of law has been explored, and the conclusion has been reached that the rule of reasonable user should be applied. What constitutes a reasonable use presents a much more difficult question; so difficult, in fact, that the courts, at the present time, might very well declare that any use or interference by private individuals for their own benefit, is unreasonable. One result of an opposite holding would be to allow private individuals to effectively disrupt property values, at least in the surrounding areas, and this, with the sanction of the courts. Considering, however, the economic benefits which might possibly accrue from a constructive program of artificial rainmaking, it may be necessary to tolerate such activities, but only under some type of governmental supervision. Whether this supervision should be state or national presents another question, the answer to which depends more upon the various legislatures than it does upon the courts.

PAUL BINZAK

RICHARD P. BUELLESBACH

IRVING ZIRBEL

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of absolute appropriation, it may be difficult to establish that rain falling upon one's land has been "reduced to possession" within the meaning of the *ferrae naturae* doctrine. Furthermore, rain, by its very nature will appropriate itself and constitute a benefit to the underlying soil; animals *ferrae naturae* require an affirmative act by one or more individuals before they become of any real value.