

SUMMARY

Subsurface “Trespass”: A Man’s Subsurface is Not His Castle

*Professor Owen L. Anderson**

[The] maxim—*cujus est solum ejus est usque ad coelum et ad inferos*—‘has no place in the modern world.’... Lord Coke, who pronounced the maxim, did not consider the possibility of airplanes. But neither did he imagine oil wells. The law of trespass need no more be the same two miles below the surface than two miles above.¹

Introduction

The title to my essay and the above passage states both my thesis and conclusion regarding an invasion of another’s deep subsurface that causes no actual harm. To grasp my essential argument, the reader need read no further. Those who need convincing or are just curious may wish to read more.

The First Restatement of Property provides that “‘property’ ... denote[s] legal relations between persons with respect to a thing.”² The “thing” that is the focus of this essay is the subsurface of real property, and the precise focus is on subsurface trespass. While the right to exclude trespassers is a fundamental incident of property “ownership,”³ this right, like other incidents, is not and should not be absolute. I submit that the right to exclude trespassers from the subsurface of real property should be much more limited than the right to exclude others from the surface of land wherever the trespasser’s subsurface intrusion is done to meet an important societal need, including private commercial needs, in an efficient manner so long as the subsurface owner suffers no actual and substantial damages. Stated conversely, while a person has a duty not to enter the subsurface property of another without the owner’s permission, this duty should not be absolute, absent proof of actual and substantial damages. Moreover, an invasion that causes no actual harm should not be subject to injunctive relief.

Although I will only briefly discuss airspace trespass cases, in essence, I am arguing that trespass law respecting the subsurface should be similar to trespass law respecting airspace. I readily recognize that, except for flights by aircraft, the Second Restatement of Torts makes not express distinction between surface, subsurface, airspace trespass.⁴ While the comparatively

* Owen L. Anderson is the Eugene Kuntz Chair in Oil, Gas & Natural Resources at The University of Oklahoma College of Law. Portions of this article are adapted from Owen L. Anderson, *Geologic CO₂ Sequestration: Who Owns the Pore Space*, 9 WYO. L. REV. 97 (2009). Professor Anderson thanks Elizabeth Brown, a second-year law student, for her research assistance.

¹ Coastal Oil and Gas Corp. v. Garza Energy Trust, 268 S.W.3d 1, 11 (Tex. 2008) (footnotes omitted), citing U.S. v. Causby, 328 U.S. 256, 261 (1946).

² 1 Restatement of Property, Introductory Note at 3 (1936).

³ Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 435 (1982).

⁴ Restatement 2d Torts § 159 provides:

(1) Except as stated in Subsection (2), a trespass may be committed on, beneath, or above the surface of the earth.

(2) Flight by aircraft in the air space above the land of another is a trespass if, but only if,

solid subsurface vis-à-vis airspace is more like the surface of land and while subsurface invasions often have a more permanent presence than an airplane flying through airspace, I believe that the law regarding airspace trespass should guide courts in deciding subsurface trespass. Indeed, when one examines subsurface trespass cases, much of the case law regarding subsurface trespass is strikingly similar to airspace trespass case law.

Some may argue that certain types of deep subsurface invasions should not be within trespass law at all, but that such invasions should be left to the law of negligence and nuisance.⁵ I am reluctant to go this far. Regarding nuisance, my reluctance to limit subsurface trespass to nuisance law lies in the famous passage from *Keeton and Prosser on the Law of Torts*—“[t]here is perhaps no more impenetrable jungle in the entire law that that which surrounds the word ‘nuisance.’”⁶ Moreover, in some jurisdictions, “artificial” barriers to a nuisance action may bar recovery even though a landowner has suffered substantial damages—e.g., in North Dakota, an activity expressly authorized by law is not a nuisance.⁷ Where no such barriers exist, nuisance law has desirable built-in flexibility to resolve many land-use disputes, but a physical invasion of a subsurface by one who intentionally injects a substance that causes actual and substantial damage to a neighboring landowner should be recoverable in money damages without having to engage in the uncertainty of balancing whether the gravity of harm to the landowner outweighs the utility of the defendant’s conduct. Thus, while I would not bar a trespass action in the case of actual harm, a nuisance approach might be appropriate for certain subsurface invasions, such as the injection of carbon dioxide (CO₂) for geologic sequestration. A nuisance approach would treat CO₂ sequestration similarly to atmospheric CO₂ emissions and in most instances would not provide a viable cause of action. Nevertheless, I would preserve a trespass claim where actual harm occurs because injecting substances, such as CO₂, for permanent occupancy of a subsurface is factually distinguishable from emitting it into the atmosphere to be carried by prevailing winds through the airspace of neighboring tracts.

I am also reluctant to limit subsurface trespass to negligence (and nuisance). If a subsurface invasion causes actual and substantial damages, proof of negligence should not be required. Of course, negligent conduct that results in actual damages to neighboring land should be recoverable when all elements of negligence are proven.

While I would preserve the availability of a trespass action for subsurface invasions, I would do so in a limited way—one that requires proof of actual and substantial damages, not mere theoretical or speculative harm.⁸ Moreover, I would not allow injunctive relief or ejectment for subsurface trespass unless the harm to a neighboring landowner clearly outweighs the utility of the subsurface invasion, e.g., where a freshwater supply is being displaced or polluted or where the injected substances leach out of what was supposed to be a confined reservoir causing

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- (a) it enters into the immediate reaches of the air space next to the land, and
 - (b) it interferes substantially with the other's use and enjoyment of his land.

⁵ See Justice Willet’s concurring opinion in *Garza*, 268 S.W.3d at 16.

⁶ W. Page Keeton Dan R. Dobbs et al, *Keeton and Prosser on the Law of Torts* § 86 at 616 (5th ed. 1984).

⁷ See, e.g., N.D. Cent. Code § 42-01-12.

⁸ Thus, I reject the holding in *Grynberg v. City of Northglenn*, 739 P.2d 230 (Colo. 1987) (testing of subsurface by surface owner’s permittee, which revealed that the property had no recoverable coal reserves, causing speculative-value loss to the coal lessee). I also reject the implicit holding in *Marengo Cave Co. v. Ross*, 10 N.E.2d 917, 921 (Ind. 1937) (the use by an adjacent landowner of a portion of a cave that lied beneath neighboring land would be an actionable trespass: “At no time were [plaintiffs]...aware that any one was trespassing upon their land.”).

serious pollution of the surface⁹ or subsurface. A mineral owner should have a right to enjoin such operations only where an injunction is necessary to allow for the diligent extraction of minerals that are actually and economically recoverable and that might otherwise be displaced or become unrecoverable as a result of the subsurface invasion. Ordinarily, these situations should not arise if the subsurface injections are subject to a robust regulatory permitting system whose purpose, in part, should be to prevent these situations from arising in the first place. In general, whether a particular subsurface invasion should be prohibited or stopped should be left to environmental regulatory agencies, not the courts. I would also bar punitive damages if the injector who causes actual and substantial damages is acting in full compliance with the terms of a regulatory permit.

Thus, in circumstances where a landowner or mineral owner suffers actual and substantial subsurface damages,¹⁰ a court should be allowed to award damages for trespass while denying injunctive relief or ejection.¹¹ The measure of damages should ordinarily be the sum of money that represents the decline in value of the owner's interest as a result of the trespass even though the trespass may be a continuing one. A mineral owner should not be permitted to recover damages for mere speculative value, but should rather have to show that its ability to recover actual mineral resources has been substantially impeded either because the minerals have been displaced or because the injections have made recovery of the minerals impossible or more expensive. Any damage award should be discounted by the costs of mineral extraction. Because, under my proposal, the trespasser is not liable for a subsurface trespass that causes no actual and substantial damages, the statute of limitations should begin to run when the landowner knows or should have known about the actual damages.¹² In the case of ongoing invasion of neighboring land, such a trespass would be continuing in nature and constitute a continuing series of successive injuries with the statute of limitations beginning anew for each series, subject to equitable defenses, such as estoppels and laches.¹³

⁹ If the injected substances leached out at the surface or polluted soil, subsoil, or usable water on neighboring property, such a trespass would become a surface trespass and be subject to an "ordinary" trespass claim. See, e.g., *Mowrer v. Ashland Oil & Ref'g Co., Inc.*, 518 F.2d 659 (7th Cir. 1975) (finding private nuisance where oil seeped out of wellheads as a result of waterflooding operations conducted on nearby land); *(Starrh and Starrh Cotton Growers v. Aera Energy LLC*, 153 Cal. App. 4th 583, 63 Cal. Reprtr. 3d 165, (2007) (wastewater from oil well percolated from pit and migrated to neighboring land, causing degradation of water, which if returned to its natural state had some potential value for irrigating certain salt-tolerant crops) and *Bloomindaes v. New York City Transit Authority*, 13 N.Y.3d 61, ___ N.E.2d ___, 2009 WL 1616509 (N.Y. 2009) (subsurface trespass activity caused flooding of retail store).

¹⁰ Because I would require a showing of actual and substantial subsurface damages, a plaintiff would have to show much more than a mere possibility of trespass. Cf., *Williams v. Continental Oil Co.*, 14 F.R.D. 58 (W.D. Okl. 1953). In other words, merely establishing a subsurface intrusion is insufficient. See, e.g., *Village of Depue v. Viacom International, Inc.*, 2009 W. 1956272, *9 (C.D. Ill. 2009).

¹¹ To this limited extent, my trespass proposal is similar to nuisance cases where damages are awarded but injunctions are denied. See, e.g., *Boomer v. Atlantic Cement Co.*, 257 N.E.2d 870 (N.Y. 1970) (awarding damages for nuisance but denying an injunction where the external costs of defendant's conduct were suffered largely by a few neighboring landowners but where the defendant's conduct provided a societal benefit).

¹² But see, *Starrh and Starrh Cotton Growers v. Aera Energy LLC*, 153 Cal. App. 4th 583, 592, 63 Cal. Reprtr. 3d 165, 170-71 (2007) (statute of limitations for a permanent trespass commences at the time of entry); *DBMS Investments, L.P. v. Exxonmobil Corp.*, 2009 WL 1974646 (Tex. App. –Corpus Christi, 2009) (statute of limitations runs from date of trespass because subsurface contamination is not inherently undiscoverable).

¹³ See, e.g., *Starrh*, 153 Cal. App. 4th at 592, 63 Cal. Rptr. At 170-71. However, even in the case of a continuing trespass, a landowner may be barred from asserting a cause of action if he fails to act with reasonable

Because I argue that some subsurface invasions by non-owners should be privileged, perhaps it is inappropriate to classify such intruders as “trespassers;” however, for convenience, I will call subsurface invasions by non-owners trespassers in this essay.¹⁴ Stated another way, absent actual and substantial damages, such an intruder commits a “technical” but not “actionable” trespass.

Unless the context indicates otherwise, when I refer to a subsurface trespasser, I am referring to an entity that is lawfully engaged in activities vis-à-vis both the surface and subsurface of the land where such entity’s surface activities are occurring but where those same activities result in some sort of physical invasion into the subsurface of neighboring land. Thus, as to the neighboring land, the entity is, strictly speaking, a subsurface trespasser under the common-law *ad coelum* doctrine;¹⁵ however, I argue that such a trespass should not be actionable unless the neighboring landowner suffers actual and substantial damages. Moreover, I further argue that injunctive relief or ejectment should not ordinarily be available.

[Editorial Note: In the completed version of the paper, I will briefly discuss the ancient history of trespass writs, briefly discuss airspace trespass case law, and then discuss in some detail subsurface trespass case law.]

Conclusion

There are numerous subsurface uses that could be either facilitated by my proposal or greatly hindered by the application of traditional surface trespass law to the subsurface. These include the injection of substances for enhanced recovery of oil, gas, brine, and other native fluids; the injection of fluids and proppants in the course of hydraulic fracturing of tight oil and gas reservoirs; the underground injection of natural gas for storage; the underground injection of wastes for disposal, including saltwater disposal relating to hydrocarbon exploitation; underground geologic carbon sequestration to decrease the emission of greenhouse gases into the atmosphere; and the gathering of subsurface information through various kinds of exploration activities, but in particular conventional and 3-D seismic surveys and aerial magnetic surveys. All except seismic and aerial surveys can lead to the physical migration of substances beneath neighboring property.

The reason for my argument is simple. All of the subsurface invasions that I just listed meet important societal needs, which must be commercial (economically efficient) if they are to succeed. A strict application of trespass law to the subsurface, particularly the ability to enjoin a continuing trespass, could in some, perhaps many, instances make the difference between an economic and uneconomic enterprise.

I hasten to point out that all of the above, except perhaps hydraulic fracturing are, or are likely to become, regulated activities. Even hydraulic fracturing requires a well permit and this activity could become more heavily regulated in the future. Subsurface injections should be regulated to prevent waste and to help assure that such uses will be economic. In addition, a key

diligence to discover the trespass. *McNay v. Gateway Coal Co.*, 1991 W. 378171 (Pa. Com. Pl. 1991) (dealing with alleged impairment of potable water by nearby coal mining operations).

¹⁴ See *Burt v. Beautiful Savior Lutheran Church of Broomfield*, 809 P.2d 1064, 1068 (Colo. Ct. App. 1990) (“trespass is the physical intrusion upon property of another without the permission of the person lawfully entitled to the possession of the real estate”).

¹⁵ The full doctrine is “*cujus est solum ejus est usque as coelum et ad inferos*” (to whomsoever the soil belongs, he owns also to the sky and to the depths). *Black Law Dictionary* ____.

reason for regulation should be to prevent such activities from causing real harm to the subsurface, including freshwater and mineral resources. A strict trespass rule—one that would require injectors to obtain permission from all affected land and mineral owners—would do little to safeguard against actual subsurface harm, as most such owners would not be able to assess the likelihood of harm and would likely be primarily concerned with the compensation received for the sale of the injection rights. While such a requirement might make it less likely that subsurface injection activities would occur in a particular area—e.g., an area of small-tract and fractional ownership, the result could be that less suitable subsurface might be used in another area—e.g., an area where a few owners controlled large tracts.

Thus, with the exceptions already noted in this essay, I conclude that courts should not allow subsurface trespass claims unless the plaintiff shows substantial, actual, and non-speculative damages. And subject to the limited exceptions already noted, courts should deny injunctive relief for subsurface trespass.