Custom and the Formalization of Mineral Property Rights: Evidence from the Supreme Court of Colorado, 1868-1895

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I. INTRODUCTION

The question of when a court should look to custom as a source of law is not a new one, and can arise in frontier contexts where a formal legal authority is being imposed for the first time. This article explores this dynamic, the role of custom in formalization of property rights, in the context of case law from the Supreme Court of Colorado (hereinafter the "Court") from 1868-1895. The analysis suggests the Court played an important role in facilitating the transition from an informal property rights regime to a formal one. Initially, faithfulness to local decision-making involved custom as a source of law, but the role of custom diminished over time. Statutory and common law precedent emerged to fill the remaining gaps in the law, and by 1890, custom in mineral claim disputes disappeared almost entirely.

Section II treats factors that led custom to emerge on the Colorado mineral frontier, arguing that the set of rules governing mineral claims was a stable, functional system. Section III explains the statutory backdrop governing mineral claims in Colorado, with an emphasis on areas that allowed or required formalization of custom. Section IV discusses mineral claim location case law, initially treating cases that show the formalization of custom, followed by later cases that highlight the declining role of custom in comparison. Section V develops a theory of the attractiveness of custom in formalization contexts, drawing upon theories of legal change and transitions. Section VI concludes that because frontier authorities were confronted with an informal system of rights that was orderly and functional, the informal system of mining custom proved a useful alternative with which to manage the costs of legal transition. This conclusion suggests that a government imposing formal control upon a previously unregulated industry could benefit from adopting an approach that reflects the way things had been done previously (provided the actors in the industry display sufficient role reciprocity and frequency of

interaction). In short, the Colorado mineral rights example suggests that in the formalization context, recognition of custom can be a cost-minimizing form of legal gradualism.

II. EMERGENCE OF CUSTOM ON THE COLORADO MINERAL FRONTIER

In the absence of legal definition, one can expect custom to govern voluntary arrangement among individuals. Custom is defined as "common practices, sanctioned by general usage, that cover similar situations."[1] In consensual arrangements, the key conditions for custom to emerge among parties are reciprocal roles,[2] and a high frequency of interactions.[3] Also, frequency implies a higher likelihood of repeat interactions among given players, which leads to an increased role for reputation, trust, and other reinforcing norms. Further, frequency and reciprocity yield scale benefits; individuals in the same "industry" as the participants in a given transaction benefit from the smooth ordering of the transaction to the extent it contributes towards the long-term institution of custom in the industry. This gives all parties the incentive to "get the rule right"[4] in any given transaction. Thus, for a custom to take hold it requires an expectation of a significant number of repeat plays on the part of a homogenous community with shared incentives in the stable operation of their industry.

In a particular consideration of the development of cattle ranching norms in Shasta County, CA, Ellickson argues that: "members of a close-knit group develop and maintain norms

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[1] Richard A. Epstein, *The Path to the TJ Hooper: The Theory and History of Custom in the Law of Tort*, 21 J. LEG. STUD. 1, 7 (1992).

[2] Because custom arises from imitation and adaptation of past practice, sufficient similarity in players' roles over time is required; in a heterogeneous community where actors' roles were quite different, or changed frequently, the expectation that the same norms would govern a future interaction with another individual would be lower.

[3] If interaction is highly infrequent, then the learning and reinforcement that other similar transactions provide to the community at large is lessened. Also, frequency betokens a higher likelihood of repeated interactions among individual players, which leads to an increased likelihood of reputation, trust, and other reinforcing norms. In a seminal work on extralegal agreements in the context of modern diamond dealers, Lisa Bernstein notes that the likelihood of parties transacting with one another in the future will have a bearing on the agreements that emerge. See Lisa Bernstein, *Opting out of the Legal System: Extralegal Contractual Relations in the Diamond Industry*, 21 J. LEG. STUD. 115, 132 (1992).

[4] Epstein, supra n. 1, at 13.

whose content serves to maximize the aggregate welfare that members obtain in their workaday affairs with one another."[5] The cattle industry Ellickson describes stands alongside the mining industry as a context where formal authorities faced a dilemma as to how to treat custom that had governed arrangements up until that point. This analysis considers this process in the context of the Colorado mineral industry, examining how the state defines and enforces property rights in a context in which a stable informal system of property rights had already emerged.

Customary mineral rights on the US frontier have not been neglected in the literature, and a number of scholars have treated the efficiency of these rights.[6] However, this analysis does not treat the efficiency of mining camp customs. A focus on efficiency would require a detailed understanding of the institutional alternatives to the specific mining practices that arose in these locations. Instead, the relevant insight from the literature regarding frontier mining camp custom is that the system of informal practices that confronted formal authorities was orderly and stable. In short, this set of practices provided a functional system of rights to mineral claims.

Initially, open access to resources was a de facto reality for first arrivals on the mineral frontier.[7] However, as more prospectors arrived, the number of potential users began to exceed the number at which common pool resources are an optimal arrangement. One explanation of this phenomenon from the perspective of contract choice shows how population increases and scarcity of resources create the tradeoffs between shared and individual production of minerals.[8] As population increases, the benefits from private arrangements increase as compared to shared arrangements. Given this demographic change, mining camps provided an institutional fix: the

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[5] ROBERT C. ELLICKSON, ORDER WITHOUT LAW 167 (1991).
[6] Gary D. Libecap, *Distributional Issues in Contracting for Property Rights*, 145 J. INST. THEOR. ECON. 6 (1989); Paul A. David & Gavin Wright, *Increasing Returns and the Genesis of American Resource Abundance*, 6 IND. & CORP. CHANGE 218 (1997); John Umbeck, *The California Gold Rush: a study of emerging property rights*, 14 EXPL. ECON. HIST. 197 (1977).
[7] David and Wright, Supra n 6 at 218.
[8] John Umbeck, *A Theory of Contract Choice and the California Gold Rush*, 20 J. LAW ECON. 421 (1977).

development of an orderly system of custom and rules governing mineral claims.

Colorado at the time of formal accession into the United States in 1861 can be argued to be well along the trajectory of commons arrangements transitioning to private ones.[9] This is because the frontier resource users were there long before the federal government, which lacked both the enforcement power and specialized knowledge necessary to enforce mineral rights on government land.[10] In the absence of a legal code that defined obligations and ownership, mining camps developed their own to suit the specialized needs their context implied. One study of mining camps describes Central City as orderly and lawful prior to Colorado's accession as a territory.[11] This characterization results from an analysis of five mining camps from Colorado with estimated populations ranging from 1,500-10,000.[12] Such a population implies a number of potential interactions that far exceeds 150-300, the number behavioral theorists have identified as the maximum number of people with whom one can maintain stable social relationships based in personal recognition.[13] Past such a point, other mechanisms are necessary to order conduct; customs and norms are the informal equivalent of these.

However, some rules that were initially stable ultimately led to conflict. One such rule was the extra-lateral right, tying the mineral right for deep veins to the vein itself as opposed to the surface location.[14] The fact that this rule, the extra lateral right, appeared in mining camps,[15]

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[9] Harold Demsetz, *Toward a Theory of Property Rights*, 57 AMER. ECON. REV. 347 (1967).
[10] Umbeck, supra n 6, at 197-226. See also David and Wright, supra n 6, at 218.
[11] J.I. Stewart, *Cooperation when N is large: Evidence from the mining camps of the American West*, 69 J. ECON. BEH. & ORG. 213, 216 (2009).
[12] Id at 219.
[13] For a discussion of this estimate and the assumptions underlying it, see R.I.M. Dunbar, *Coevolution of neocortical size, group size and language in humans*, 16 BEH. & BRAIN SCI. 724-725 (1993). Other estimates of the maximum are higher than Dunbar's (at 291), but none approach the size of any of the mining camps cited by Stewart. See Christopher McCarty, et al., *Comparing Two Methods for Estimating Network Size*, 60 HUM. ORG. 28 (2001).
[14] Sumner J. La Croix, *Property Rights and Institutional Change during Australia's Gold Rush*, 29 EXPL. ECON. HIST. 204, 224-225 (1992).
[15] David and Wright highlight the fact that such a right specification appears as early as the 16th Century in an essay on mining by Agricola, so it cannot be considered an innovation attributable to US mining camps. David and Wright, supra n. 6 at 222.

and eventually became a central element of American mineral law,[16] provides an example of the extent to which the formal system took into account mining camp customs and rules, a phenomenon that is examined in the following section. Nonetheless, the eventual conflicts this rule created also highlight the necessary role of the Court in smoothing the transition from an informal to a formal legal system.

III. STATUTORY LAW GOVERNING MINERAL CLAIM LOCATIONS

Among the governance questions authorities faced along the frontier was how to treat preexisting mining camp rules and custom in foundational legislation. In Colorado, the state statutes passed prior to federal mineral law created an explicit role for custom. The Colorado act approved on November 7, 1861 (1 Sess. 168) decreed that property rights acquired prior to the passage of the act "should be ascertained, adjudged and determined by the local law of the district or precinct in which such tract was situated as it existed on the day when such rights were acquired, and if there was no such local law, then by the common custom prevailing in respect to such property." In the following section, the case of Sullivan v. Hense, 2 Colo. 424 (1874) displays the Court's role in defining what types of evidence could prove local custom or law in satisfaction of this statutory grant. These local law and custom requirements were reiterated in the Colorado Revised Statutes of 1868 and remained in force throughout the period surveyed.

The federal government also codified many of the informal property arrangements in the Mining Laws of 1865, 1870, and 1872.[17] The initial statutes deferred to existing state and local practices, and it was not until the General Mining Act of 1872 that a government granted title to

[16] Gary D. Libecap, *Government Support of Private Claims to Public Minerals: Western Mineral Rights*, 53 BUS. HIST. REV. 364, 369 (1979).
[17] Henry E. Smith, *Custom in American Property Law: A Vanishing Act*, 48 TEX. INTL. LAW J. 507, 518 (2013).

a mineral claim became available.[18] This title was known as a patent. Areas where these federal statutes reflected preexisting custom included: "open access for exploration; exclusive rights to mine a specific site upon proof of discovery; limits on the size of individual claims; and the requirement that a claim be worked at a certain frequency or else be subject to forfeit."[19]

In the Court's first decade of treating mineral property law, it perceived dual purposes underlying the initial Federal mining statutes: "fix the rights and reward the labors of the discoverer."[20] These statutory purposes exemplify the tradeoff that imposition of a new legal regime implies for the prior one. The age-old principle of "prior-in-time, higher-in-right" can create tension with the government priority of stabilizing the new property rights system. The typical government response is that a government title takes precedence over the informal title, a principle often linked to the case of Johnson v M'Intosh, 21 U.S. 543 (1823).[21] As will be seen in the next section, the imposition of statutory and common law authority in Colorado also provoked this tension in cases involving mineral claim location.

A further strategy of recognizing custom in the formal system came through the 1872 Act, which permitted miners in each district to make regulations "governing the location, manner of recording, and amount of work necessary to hold possession of a mining claim."[22] This importation of local rules and customs into the formal system itself displays the tension underlying the dual purposes of the mineral statute. On the one hand, allowing local rules to

[18] Because of this delay in the ability to receive official title to the federal land, most disputes as to title arose after 1872 in the Supreme Court of Colorado.
[19] David and Wright, supra n. 6, at 218-219.
[20] Corning Tunnel Co. v. Pell, 4 Colo. 509 (1878).
[21] At issue in Johnson was the supremacy of "sovereign" titles granted by the colonial authority, as opposed to "aboriginal" titles granted by Native Americans, but the primacy of a government-granted title underlies much of the analysis in the case.
[22] Sweet v Webber, 7 Colo. 443, 446 (1884).

become law was a means of rewarding initial discoverers, but to the extent local customs were contrary to higher law, the formal requirements took precedence.

The federal and state mineral statutes detailed the requirements a potential mineral claimant had to satisfy if they wished to formalize title to the lode claim they had discovered. Throughout the period considered, miners could choose the extent to which they formalized the claim they had been working. A miner who discovered a mineral deposit, and worked this deposit productively, had a right against other claimants to the land, provided there were no earlier claims to the lode. However, as against other claimants, having discovered and worked a claim was not proof of title. It followed that a given miner could not transfer his interest in a location until the location had been recorded with the county. Similarly, such a location certificate was not proof against someone who had been granted a patent to the same lode.

A miner interested in formalizing a mineral discovery had to complete six steps, which remained largely unchanged from their statutory inception in 1861.[23] Completion of these steps was the first thing required of miners in order to perfect title to a location (and prior to 1872, was all miners could do to prove the superiority of their claim, since they held the location in contravention of federal law). In order to obtain the formal title, known as a mineral patent, a miner would file a claim with the local land office. After furnishing the location certificate, the miner would go over the satisfaction of other statutory requirements with the land office recorder. Upon proof of satisfying these requirements, notice would be posted for sixty days in

[23] 1. Discover a mineral-bearing section of rock; 2. Post a plain sign or notice containing the name of the lode, the name of the locator, and the date of discovery; 3. Within sixty days of the discovery date, sink a discovery shaft to a depth of at least ten feet, in order to discover the main vein of mineral in the lode, and ascertain in which direction it runs in the rock; 4. Within ninety days of the discovery date, install six substantial posts on the surface that mark the rectangular claim, with the long sides of the rectangle going in parallel to the direction the lode runs underground; 5. Within ninety days of discovery, after completing the preceding steps, file a location certificate with the clerk and recorder of the county in which the claim is located; 6. This location certificate had to contain the name of the lode, the name of the locator, the date of location, the number of feet claimed on each side of the discovery shaft, the general direction of the lode, and a description that would identify the claim with reasonable certainty.

the land office as well as the newspaper of the mining district in which the location was claimed. An adverse claimant could object to the patent claim during this time. Afterwards, a patent was proof against future claims, unless some defect in the steps precedent to patent could be shown. The role of the Court in first facilitating, and then strengthening this process, is described in the next section.

IV. JUDICIAL TREATMENT OF CUSTOM IN COLORADO

Alongside the statutory recognition of custom, the Supreme Court of Colorado played a role in formalizing mining camp custom. In many cases, the best way to achieve the dual statutory purposes (rewarding the discoverer and fixing the rights) the courts saw as guiding its adjudication of mineral disputes was faithfulness to local decision-making. Initially, this involved custom, but later was achieved through deference to local land office determinations regarding claim location.

Only a fraction of the cases generated by the mineral industry in Colorado addressed mining camp custom explicitly. This is because any industry generates a given background amount of contract, torts, and property disputes, as well as disputes as to the procedure of the judicial system itself. The underlying intuition of the common law is that because of the similarity of disputes that tend to arise from human interaction, a rule generated in one dispute is likely to apply to future cases with similar facts. What this meant was that the Court could draw upon a wealth of persuasive precedent from other states whose courts had been active for nearly a century at the time of the Court's inception in 1868. Where it could not draw upon existing common law was in terms of practices governing claim ownership. These practices, such as the extra-lateral right defined in the previous section, had been adopted because of the unique nature of mining in the mountains of the US west. Thus, an examination of cases in which the mineral

industry was involved would not yield custom particular to mining camps. Disputes governing claim location, however, were likely to display custom because working and marking a mineral claim had required initial entrants upon the frontier to adopt customs suited to the topography and geology of the Rocky Mountains. Because of this intuition, the cases in the following subsections are physical claim location cases that arose in the Court from 1868-1895.

The Court's relationship with custom and local mining rules during the period surveyed falls into two categories; (i) guidance as to when and how custom could establish validity of title; and (ii) deference to land department patent findings through recognizing their presumptive validity. While the importance of the first category diminished over the period surveyed, the weight the Court attached to local patent office findings increased. This is consistent with the idea that judicial recognition of custom displays diminishing marginal returns in the context of legal formalization. Initially, the gains to judicial treatment of custom were large, as the court filled in statutory and common law gaps. In so doing, the Court minimized the costs of legal change implied by formalization, an argument that is developed in Section V. In the next two subsections, each of the ways in which the Court sought to minimize the costs of formalization is examined through cases governing physical claim location. The third subsection displays the declining treatment of custom from the 1880s onwards.

A. When could custom enter the courts?

The Court invalidated a claim of custom or local miner's regulations for two reasons: either it contravened statutory law, or there was insufficient proof of the claim. The Court's role as the state court of final instance meant its decisions were intended as guidance for lower courts on issues that were not well-defined. Thus, each treatment of custom, whether validating a claim

or not, provided guidance to lower courts and future claimants as to what was necessary to raise a claim based on custom in future physical location disputes.

In 1874, the Court gave its first thorough treatment of custom in a dispute regarding the length of a mineral claim. Sullivan v. Hense, 2 Colo. 424 (1874). At the time the mineral claim in Sullivan was located, "[t]he manner of locating a mining claim on the public domain, and of conveying title to the same, was then regulated by rules or by-laws made by the inhabitants of the district in which the claim was situated, or in the absence of such rules and by-laws, by the local customs and usages of the district." Sullivan, supra at 429. The Court reversed the judgment of the lower court on grounds that it had improperly excluded evidence of custom in the relevant mining district, and improperly allowed the testimony of a single miner to stand as evidence of custom. The Court spent several pages making its preference for verifiable written records of custom clear, whether or not the mining district had ratified these records at the time. Sullivan, supra at 431-432.

Several years later, in Wolfley v. Lebanon Min. Co. of N.Y., 4 Colo. 112 (1878), the Court described the preexisting common law doctrine regarding how the surface boundaries in a mineral patent defined the subsurface right. In so doing, the Court cites Blackstone: "downward whatever is in a direct line, between the surface of any land and the center of the earth, belongs to the owner of the surface, *as is every day's experience in the mining countries*." Wolfley, supra at 114 (emphasis mine). The reference to Blackstone is a reference to common law practice, but the court's choice of quotation emphasizes the link to custom underlying the common law.

The Wolfley court went on to define how the statutory grant of a mineral patent departed from the common law practice in one important regard. Instead of taking the boundaries of one's property as lines descending into the earth, a patentee was entitled to follow the lode in their

claim into an adjoining patent, provided the lode reached its highest point within their claim. This is the "extra-lateral right" described previously in section II. Based on how gold and silver were deposited in the rough terrain of the Rocky Mountains, the deposits did not fall within clean horizontal or vertical lines. Because of this, and because the principal value of developing a given claim lay in following the lode, the act of Congress of July 26, 1866, specified that: "the lode in its descending course may be followed to any depth, with its dips, angles, and variation, into the premises adjoining…" Wolfley, supra at 115. This reflected the common practice in western lode mining of finding the point where the lode came closest to the surface, if not broke the surface in plain sight. Upon location of a lode near the surface, "[h]owever tortuous might be the course of the lode, the claimant had a perfect right to follow it up…" Wolfley supra at 116.

On the subject of the extra-lateral right, Wolfley resolved the tension created by the two aims of the original federal mineral statute, rewarding the discoverer, and creating a stable system of formalized rights. In one sense, Wolfley was faithful to mineral custom in the west, in allowing the lode miner to follow the lode wherever it went. As importantly, however, the Court denied a defense of custom when limiting the ability of the miner to follow the lode into adjacent claims. In filing for a patent, the locator had to specify the direction underground the lode was likely to run, after the locator had completed discovery work on the lode to establish this fact. This was to establish the likely direction the miner's work would take underground, following the most productive lode. The miner could not then subsequently claim a different lode that lay along a different line from the one specified in their original location filing. This can be seen as a manifestation of "fixing" the system of rights in general trumping the customary rights of the individual discoverer.

In this sense, the case stood for the dominance of statutory law over custom, for the Court's response to the defense of custom was clear: "The act declares that the mineral lands of the public domain are free and open to exploration and occupation, subject to such regulations as may be prescribed by law, and subject also to the local customs or rules of miners in the several mining districts, *so far as the same may not be in conflict with the laws of the United States.*" Wolfley, supra at 118. When statutory requirements and custom are in conflict, the government version will carry the day, although it should be noted that the statutory requirements were faithful to custom to an extent. In short, custom could not "transfer to the patentee any greater interest or estate than that which the paramount law warrants." Wolfley, supra at 119.

In contrast, Murley v. Ennis, 2 Colo. 300 (1874) provides an example of how local law could place further restrictions on the interest a patentee had in his estate to minerals on public land. This arose from the statutory requirement that prior to the issuance of a patent, compliance with mining camp rules and customs was needed. In Murley, the Court described the purpose underlying the time state law allowed between discovering a claim and filing a location certificate, which entitled the miner: "to a reasonable length of time in which to perfect the development *which the local law requires of him*; in the meantime he must be permitted to retain the possession of the premises without interference." Murley, supra at 305. The Court would affirm or invalidate patent claims based upon compliance with mining camp rules and regulations, an analysis that consistently demanded evidence of what these rules were.

The 1872 congressional act permitted miners in each district to themselves make regulations including those "governing the location, manner of recording, amount of work necessary to hold possession of a mining claim." Sweet v. Webber, 7 Colo. 443, 446 (1884). As seen in Wolfley, this ability to regulate locally was subject to the proviso that such regulations

not conflict with current federal or state law. Furthermore, the Court in Sweet was willing recognize certain mining usages and customs without any proof whatsoever, noting that "it is a matter of common notoriety that rules, usages and customs existed on this subject in all the mining regions of Colorado from the earliest days of territorial organization, and it is probable that they prevailed in the district mentioned as well as elsewhere." Sweet, supra at 447.

Similarly, the Court's treatment of custom in Consolidated Republican Mtn. Min. Co. v Lebanon Min. Co., 9 Colo 343 (1886), highlights its increased familiarity with mining camp custom. The Court invalidated a claim upon which the requisite discovery notice had been posted, but insufficient work completed: "To say that merely posting a discovery notice on the crevice, and recording a certificate stating metes and bounds, constituted such an appropriation as, for a considerable period, prevented another from taking possession and developing the lode, is to recognize a custom that can hardly be considered reasonable, - *a custom contrary to the usual experience and practice in appropriations of the public domain, and incompatible with ordinary sagacity and appreciation of justice among miners themselves*." Consolidated Republican, supra at 345 (emphasis mine).

Sweet and Consolidated Republican emphasize the declining role proof of custom played in the Court's treatment of claim location disputes. In Sweet, the Court recognized the annual labor requirement underlying a mineral claim as being a matter of "common notoriety" by 1884. By 1886 in Consolidated Republican, the Court was comfortable enough with custom to pronounce a violation of the labor requirement as contrary to "usual experience and practice." This declining treatment of evidence of custom occurred alongside an increase in the weight the Court accorded land office patent determinations, a pattern highlighted in the next subsection.

B. Deference to location certificate and patent determinations

The statutory scheme of rewarding the discoverer and fixing a formal system of rights was geared toward rights of first possession. Similarly, the court's treatment of land office patent grants by the local land office can also be seen as granting a right of first possession in court proceedings as against competing claimants. A valid patent holder was entitled to favorable legal presumptions as against competing claimants, including that an adverse patent claimant had to bring suit in court within thirty days of becoming aware of the competing claims to the patent. In some sense, the entire process of establishing mineral rights was geared toward first possession. A location certificate was distinct from a patent, but also served to establish rights of first possession as against other claimants. Thus, the Court would defer to both state and federal findings regarding mineral locations, once a location certificate or patent had been issued.

In a series of decisions in early 1880s, the Court developed a number of legal rules in favor of a patentee as against adverse claimants. The first move in this direction was in Patterson v. Hitchcock, 3 Colo. 533 (1877), which strengthened the rights associated with a location certificate. In Patterson, the Court held that a miner who held a location certificate in compliance with statutory requirements was: "entitled *prima facie* to all the rights which the law attaches to a valid location." Patterson, supra at 542.

The extension of this process to federal patent findings began in Poire v. Wells, 6 Colo. 406 (1882). In Poire, the Court relied upon Supreme Court of the United States precedent from Steel v St. Louis Smelting and Refining Co., 106 U.S. 447 (1882), which provided guidance as to the proper role of the Court with respect to patent findings of the land office: "The officers of this department...exercise a judicial function, and their judgment as to matters of fact properly determined by them, is conclusive when brought to notice in a collateral proceeding. Upon issuance of the patent the presumption obtains that all the requirements preliminary to its issue

have been complied with. The court holds that this presumption is not open to rebuttal in an action at law, and that the patent itself is unassailable, except by a direct proceeding in equity for its correction or annulment." Poire, supra at 409.

A similar conclusion to Patterson was applied in favor of patent holders in a case from 1882 as well as in the same case's rehearing in 1883. In Armstrong v. Lower, 6 Colo. 393, 399 (1882), the Court declared: "When one has discovered a lode upon the unappropriated public domain, and has, within the proper time, in good faith, performed all the subsequent acts essential to a valid location, as provided by law, he is entitled to the presumption that his lode extends through the full length of the claim."[24] The Court reheard the same case the following year and articulated the same conclusion. Armstrong v. Lower, 6 Colo. 581, 585 (1883). These cases illustrate the Supreme Court of Colorado shift toward tight treatment of land office findings in the early 1880s.

Similarly, in 1886, the Court noted that it viewed the patent issuance process as requiring: "all rights…to be adjusted prior to the issuance of the patent, to the end that it may be impregnable against all comers." Lee v. Stahl, 9 Colo. 208, 211 (1886). In a later case involving different legal questions arising from the same underlying dispute, the Court again clarified the role of the land office in settling mineral rights claims: "it was evidently the design of the act of 1872 to have all conflicts, so far as practicable, settled by the issuance of the patent, through the adverse proceedings therein provided for." Lee v. Stahl, 13 Colo. 174, 179 (1888).

Notwithstanding such deference, though, the Court would not permit obviously bad faith claimants to prevail by resting their claim upon a mistake in patent registration. When a recorder put down the wrong name for a claim in the location certificate, and another party subsequently

[24] The Court's general treatment of "acts essential to a valid location" as simply being "provided by law" presages the later shift in Court articulation of satisfaction of location statute requirements discussed in the next subsection.

claimed the preexisting claim under another name, the Court would not permit the opportunistic party to recover. Weese v. Barker, 7 Colo. 178 (1883). A similar example occurred the following year in Gold Hill, Colorado, where a valuable gold mine was subject to an adverse patent claim due to an error the land officer recorder made. Again, the Court was unwilling to reward such opportunistic behavior, and instead relied upon the supremacy of well-known local monuments to suffice as the reference points required to validate the original patent. Cullacott v. Cash Gold and Silver Min. Co., 8 Colo. 179, 181-183 (1884).

This check against land office errors exemplifies the shaving along the margins that the Court facilitated between the dual aims of formalization of mineral claims. Fixing the rights in a predictable way involved the risk of someone other than the original discover making a superior claim based on formal requirements. In cases where this was apparent to the Court, the desirable outcome was clear; those who had made a good faith effort to comply with statutory terms, and were clearly the original possessor from the face of the record, could expect protection against subsequent opportunistic claimants seeking to take advantage of an error in the formal system.

By 1882, the Court had been presiding over cases for fourteen years, and so the perspective of potential claimants in this period was fundamentally different from at the Court's inception. In 1868, initial claimants had been mining prior to the imposition of a formal regime of property rights, and a stable set of informal property arrangements greeted entrants onto the mineral frontier. After fourteen years of judicial oversight, however, these two claimant types necessarily stood in very different relationships with the formal system. Established claimants on the frontier had over a decade in which to formalize their claims through the patent process defined by federal statutes. Furthermore, new entrants did not need to rely on mining camp rules or custom to define what was necessary to perfect a mineral patent: the statutory law, common

law and land office regulations on this point were well-developed compared to what they had been in the years immediately following the Court's inception. This meant the initially large gains to the Court's treatment of custom had diminished.

During this period, the court applied the requirements of the mineral statutes with increasing stringency. In 1890, an adverse claimant who filed sixty-two days after notice of a patent application was barred from raising their adverse claim, notwithstanding the statutory requirement that notice be posted for a period of weeks, which given the particulars of the case, was a notice requirement for sixty-three days. Hunt v. Eureka Gulch Min. Co., 14 Colo. 451 (1890). In formalizing a regime of property rights, the stability and certainty associated with fixing the rights will trump the equities associated with those claimants who could not quite satisfy the requirements of the statute. If a miner could not raise his adverse claim within the sixty days required, it did not matter if these sixty days fell over Christmas and the New Year, which in Hunt was what blocked the adverse claimant's ability to file in a timely fashion.

This rise in adherence to local land office requirements was paralleled by a decline in the influence of custom in determining the outcomes of such cases. The following subsection discusses a number of cases that highlight this decline.

C. The decline of local law and custom in physical claim location cases

Unless local institutions came into conflict with federal law, the Court was responsive to local custom. However, as a given court creates a body of precedent, based in part upon local custom, the court's incentive to continue formalizing this custom diminishes for two reasons. First, the incentive to cite its own precedent, and reaffirm the legitimacy of its authority increases in comparison to the gains of citing inferior authorities such as custom or local mining district rules. Second, as the formalization of custom fills gaps in statutory and common law authority,

the benefit of additional gapfilling diminishes. Both these reasons suggest the potential for diminishing marginal returns to the formalization of custom in the context of a formal system being imposed upon a preexisting set of informal institutions for the first time. This subsection explores this decline of custom in the physical mineral claim location context in Colorado.

Initially, the Court relied upon adherence to local mining camp law in order to validate a given patent claim. A clear example of this from 1874 is seen in Murley, supra at 305: "But if one acting for himself alone discovers in the public domain a mineral deposit, such as mentioned in the acts of congress, he, by virtue of his discovery, merely becomes entitled to a reasonable length of time in which to perfect the development *which the local law requires of him...*" Such references to local mining camp requirements continue[25] through 1886, when they are referenced in Becker v. Pugh, 8 Colo. 589, 592 (1886): "in order to constitute a valid location, compliance with miners' rules and regulations in force at the time, as well as with statutes on the subject, is essential…" The Court in Becker allowed evidence of miners' rules and regulations to invalidate a patent claim, based on the specifics of a mining stakes requirement in local mining district regulations. However, Becker also displays the emergence of an additional alternative to custom in proving mineral location claims: federal regulation. In invalidating a patent, the Court first cites a number of land office rules that justify the patent invalidation, concluding: "land office rules clearly show the construction given by the executive department of the general government to the statutes in question." Becker, supra at 591. Nonetheless, the Court also uses the failure to comply with mining district regulations as a reason for finding a patent claim insufficient. Becker thus straddles the divide between the two regimes, emphasizing the weight of land office findings, but also demanding compliance with mining camp rules.

[25] See Wolfley (1878), supra at 114-115; Armstrong (1883), supra at 583; Sweet (1884), supra at 450.

In the following years, the Court completes the transition seen in Becker. In Bryan v. McCraig, 10 Colo. 309, 314 (1887) the Court nowhere mentions local law or custom in its treatment of a similar patent claim, instead citing back to Becker for the requisite authority. This shift away from compliance with miner's rules and regulations to compliance with mining laws is seen in a number of subsequent cases. First, in Manning v. Strehlow, 11 Colo. 451, 452, the Court notes that in order to prevail on a claim, a miner needed to have "made a valid location of the premises in controversy and, by virtue of a compliance with all the requirements *of the mining laws*, is entitled to a patent from the federal government." (emphasis mine). This shift from reliance on local rules to reliance on statutory and common law is further seen in Marshall Silver Min. Co. v. Kirtley, 12 Colo. 410 (1888), where the court again emphasized "compliance *with the provisions of the statute* relating to the location of mining claims." Marshall Silver, supra at 418 (emphasis mine).

By this time in 1888, the Court in Omar v. Soper, 11 Colo. 380 (1888), cited to the Supreme Court of the United States in regards to requirements for physical mining location disputes in Colorado, for a case arising in the Colorado district of the US circuit courts was granted certiorari. Omar relies on Erhardt v. Boaro, 113 U.S. 527 (1885), to define requirements in the Colorado (and federal) statutes regarding posting of a discovery notice. Omar exemplifies the shift in sources of law for the Court that arose as statutory and common law filled in the gaps that custom and mining camp rules filled initially. The adverse claim in Omar was based in the original claimant's failure to comply with boundary stake requirements, when the boundaries of the claim were clearly posted on the discovery notice while the claim was being actively worked. The Court allowed the original claimant to prevail based on the clear specification of boundaries in the original discovery notice and the satisfaction of annual work requirements as defined in

Erhardt. However, the holding in Omar is also faithful to the initial customs of right of first possession and annual work requirements. Nonetheless, despite this faithfulness to what had once been custom (and was now established law), the opinion contains no mention of mining district rules or custom. Following these cases, every case treating physical claim location in the subsequent six years does not mention custom or local mining rules.

V. CUSTOM AND LEGAL TRANSITIONS

Given the judicial treatment of custom outlined in the previous section, the question remains as to why the Court initially drew from custom as opposed to simply relying on statutory law, or precedent from other states. This section develops a theory of why Colorado courts were responsive to custom. In short, recognition of custom decreased the magnitude of legal change created by formalization, lowering the costs of the judicial system. Law governing the physical location of mining claims that was faithful to how things were done prior implied less change for any given claimant who was familiar with the existing set of informal arrangements. The cost reduction that recognition of custom implied can be divided into four categories: (i) less uncertainty; (ii) less loss of durable investment in property; (iii) fewer losers likely to be created by formalization of rights; and (iv) smaller potential for conflict, and hence, violence.

First, and self-evidently, statutory recognition of custom required the courts to recognize it in the subset of cases in which the statutes demanded it. Adherence to the statutory mandates required balancing the need to formalize the system of rights governing mineral claims, with the need to ensure original discoverers were rewarded for their labors, as opposed to bad faith claimants seeking to perfect their claims before the original discoverer could. Although heeding such explicit statutory purposes was apparent in the cases surveyed, there were additional motivations behind the Court's treatment of custom in this period.

Scholars of legal change and legal transitions have suggested a number of theoretical reasons why the Court can be argued to have done more than just follow statutory recognition of custom. Most legal transition theory has focused on changes to legal rules, an examination that presupposes a formal legal regime. Nonetheless, the imposition of a formal legal regime upon a preexisting set of informal arrangements can be characterized as a legal transition. The form and source of the authority may have changed, but the nature of the underlying disputes arising from the mineral industry remained largely unchanged. As applied to the formalization context on the Colorado frontier, the following theories of legal change speak just as much to the potential reasons underlying legislative recognition of custom, as they do judicial treatment of custom. However, given the focus of this analysis, these theories of legal change will be considered in terms of how they could have influenced judicial treatment of custom.

In his treatment of legal transitions, Louis Kaplow concludes that compensation for harms resultant from legal change can induce inefficient investment behavior by parties who stand to lose from the potential change. Kaplow characterizes the legal transition context as defined by "the existence of uncertainty concerning future government policy prior to government action."[26] For a governance regime implementing formal law for the first time, one way to reduce uncertainty associated with government action is to reduce the extent of the transition from informal to formal rules. Industry participants in areas where context-specific custom had developed, such as mineral location claims, could be confident past and current investment in claim development would not be wasted by the imposition of a different regime.

[26] Louis Kaplow, *An Economic Analysis of Legal Transitions*, 99 HARV. L. REV. 511, 512 (1986). See also Louis Kaplow, *Transition Policy: A Conceptual Framework*, 13 J. CONT. LEG. ISSUES 161, 177-179 (2003).

Certain types of investment are more costly to alter in the face of legal change.[27] This provides an additional reason why the judiciary was willing to consider custom in the particular context of physical location claims: the durable nature of labor expended in locating such claims. In considering the effects of legal change, it is important to distinguish the effects of new law on past behavior, both "durable" and "modifiable."[28] Durable past behavior involves large fixed investments, whereas modifiable behavior involves low-cost adjustments in the face of legal change. In the context of the Colorado mineral frontier; how far one had to dig a discovery shaft, what other physical improvements were necessary, and the annual labor required; all resulted in a durable investment in a mining location by an individual miner. Thus, the durable nature of labor expended in claim development may be an additional reason that diminishing the magnitude of legal change in physical mineral location contexts was a desirable institutional choice. Miners could not update their mineral locations to reflect new law as easily as they could respond to other legal adjustments that affected more modifiable behavior.

Desirable legal rules for transitions are characterized as fostering accurate expectations, "designed to encourage parties to anticipate new law."[29] The extent a proposed legal change creates losers may lead to the change's demise; these losers have an incentive to oppose the change occurring in the first place.[30] This potential opposition to legal change is an argument for gradual legal change in such cases. Gradual change has a higher likelihood of success because it can provoke a lower likelihood of opposition. In the context of formalization on the frontier, following custom provided one way to minimize the costs of legal change. The ability of miners

[27] Steven Shavell, *On Optimal Legal Change, Past Behavior, and Grandfathering*, 37 J. LEG. STUD. 37, 38-39 (2008).
[28] Id at 39.
[29] Saul Levmore, *Changes, Anticipations, and Reparations*, 99 COL. L. REV. 1657, 1658 (1999).
[30] Id at 1660.

in frontier areas to influence the political system for their own ends is well established.[31] Upon being vested with authority in such a context for the first time, the choice for judiciary was clear: adherence to the existing arrangements, to the extent statutory mandates required and permitted it, minimized the costs of legal change.

If legal change typically creates winners and losers, then the context of formalization carries the same potential. Wasteful political activity can result from a particular legal rule change, but the frontier context carried the potential for greater waste than just political competition. Conflict, and even violence, has been an outcome in frontier formalization contexts. Interestingly, whether or not conflict results in these contexts has been linked to the extent to which the formalization regime respected de facto arrangements preceding the formal authority.[32] When it came to the competing property rights of homesteaders and cattle ranchers in the western plain states of the US, the strategy of the government was simply to not enforce the formal rights of homesteaders in the face of a strong competing informal claim from ranchers who had long preceded the homesteaders into the western plains.[33]

However, the government failure to enforce formal claims to land made in compliance with its statutes is clearly a second best outcome from the perspective of a regime hoping to impose formal control that will eventually supplant the informal system. Given the path dependence property allocations have displayed in US frontier areas, this emphasizes the need to "get it right the first time."[34] If customary property rights had already proven themselves to be an enduring set of functional arrangements, they presented an attractive option as compared to

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[31] Gary D. Libecap, *The Assignment of Property Rights on the Western Frontier: Lessons for Contemporary Environmental and Resource Policy*, 67 J. ECON. HIST. 257, 269-270 (2007).
[32] Lee Alston, Edwyna Harris, and Bernardo Mueller, *The Development of Property Rights on Frontiers: Endowments, Norms, and Politics*, 72 J. ECON. HIST. 741, 744-745 (2012).
[33] Id at 758-759.
[34] Libecap, supra n. 29 at 259. See also Epstein, supra n. 1 at 13.

alternatives seeking to formalize an untested system of rights. This was not the case when it came to the competing industries of homesteading and ranching,[35] but this analysis suggests that in the case of mineral rights along the Colorado frontier, customary arrangements presented an attractive option to the formal authorities.[36]

VI. CONCLUSION

An authority imposing formal control for the first time faces a choice about the extent of actual legal change its system of formalization will introduce. One way to manage the transactions costs associated with this formalization is to codify preexisting informal rules, provided they arose from a context where conflict over customs and rules was minimal. Colorado mining camps had developed just such an orderly system governing mineral rights prior to the arrival of state and federal authorities. The cases the Supreme Court of Colorado treated governing mineral location claims suggest that recognition of custom can be a cost-minimizing form of legal gradualism. In providing guidance to lower courts and future claimants as to the proper role of claims of custom in adjudicating such disputes, the Court balanced the underlying statutory purposes in awarding mineral lands. As statutory and common law authority emerged, in good part drawn directly from the informal system, the gains to the Court from recognizing custom diminished, and references to custom in physical location claims eventually disappear altogether.

The relationship between custom and cost reduction of legal change is one that bears upon modern legal transitions as well. An industry in which an authority is imposing control for

[35] Alston et al, supra n. 30, at 759-760.
[36] Libecap concludes "property rights allocations that were based on local conditions and prior use and were unconstrained by outside government mandates were most effective in addressing not only the immediate threat of open-access, but in providing a longer-term basis for production, investment, and trade. *Western mineral rights stand out in this regard*." Libecap, supra n 29, at 259 (emphasis mine).

the first time might be one whose informal practices provide a clear means of diminishing the costs of the transition. As one scholar notes, the informal system "is a fragile resource that policymakers must conserve and enhance even as they inevitably draw on it."[37]

[37] Richard H. Pildes, *The Destruction of Social Capital through Law*, 144 U. PENN. LAW REV. 2065.