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ROUNDTABLE TWO
ENVIRONMENTAL LAW EDUCATION: NEW
TECHNIQUES IN THE CLASSROOM AND BEYOND

Lincoln Davies,^{*} Karrigan Börk,^{} and Sarah Krakoff[†]**

I. YOUR LAW SCHOOL IS GRANTED A SMALL AMOUNT OF MONEY AND IS DEVOTED TO IMPROVING ITS ENVIRONMENTAL PROGRAM AROUND FIELD STUDIES AND EXPERIENTIAL LEARNING. HOW WOULD YOU USE THAT FUNDING TO CHANGE YOUR PROGRAM TO HELP PREPARE STUDENTS FOR AN ENVIRONMENTAL PRACTICE FIVE OR TEN YEARS FROM NOW?

Professor Krakoff:

First, I want to briefly explain our curriculum, as it exists, to help with the context for my answer. At Colorado, we have what I think of as a developmental curriculum. We have a foundations class that is the gateway to the rest of the substantive classes. And then we have pollution law, water law, public lands, climate change—a full suite of doctrinal classes.¹ And then we have the cast of classes that already include the Natural Resources and Environmental Law Clinic and a field seminar that's offered every year either over spring break or at the end of the semester. I explain all that because what I think we *don't* need in Colorado is more courses added, necessarily.

I would use a small amount of money to do the following four things: First, I would provide support for professors across the curriculum to coordinate more between all these classes. For example, I'd just provide a little bit of money to somehow incentivize more work along the following lines: for example, if the clinical program is

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¹ 2021-2022 *University Catalog: Law School (LAWS) Courses*, UNIV. OF COLO. BOULDER 3, 8, 12, 19, 23, <https://catalog.colorado.edu/courses-a-z/laws/> (last visited May 9, 2022).

working on a case that was directly relevant to what's being taught in pollution or public land law, and the clinic students visit that doctrinal class and talk about a case study from the clinic. This would facilitate more integration throughout the curriculum in the stand-up classes, the clinical and experiential experiences, and the field courses, too. Second, I would encourage more outside visitors from real-life practice contexts to be brought into the full suite of courses. Third, and across the board, I would provide money for the professors in all those classes to do more with writing exercises and more constant assessment and feedback. And then finally, in terms of the field seminars we do offer, it would be great if we had enough money to absolutely guarantee that no student ever had to spend additional money to take a field course due to travel expenses. Rafting the Colorado River ain't cheap,² you know, and we raise money for that Colorado field course on a hand-to-mouth basis, pretty much. It would be nice to have a small pot of money to guarantee equitable access to the full curriculum without students worrying about taking on increasing debt. So, thanks—I'll wait for your check in the mail.

Professor Börk:

I would echo Professor Krakoff's comment about the funding for field experiences. There is an eco-geomorphology class here at UC-Davis that rafts the Colorado River, and we're going to start sending law students on that.³ Funding for a big trip like that is always a challenge. I run a much cheaper four-day trip—a dry-land trip in vans—and this year, for 25 students, two volunteers, and one guide, our total cost for food, transportation, field notebooks, everything all in was about \$175 a person to run, so we can run it for the students for less than the cost of a textbook. But people still seem to think of that as different than a textbook expenditure.

² See *One Day Grand Canyon Rafting 2022 Season*, ONE DAY GRAND CANYON RAFTING, <https://onedaygrandcanyonrafting.com/> (last visited Apr. 26, 2022); *One Day Grand Canyon Rafting*, RIVERS & OCEANS, <https://www.riversandocceans.com/one-day-grand-canyon-rafting-trip/> (last visited May 9, 2022); *Westwater Canyon Full Day Rafting Adventure*, MOAB ADVENTURE CTR., <https://www.moabadventurecenter.com/westwater-canyon-rafting> (last visited Apr. 26, 2022).

³ Kat Kerlin & Joe Proudman, *A Grand Adventure*, UNIV. OF CAL. DAVIS (Apr. 5, 2016), <https://www.ucdavis.edu/climate/news/grand-adventure>.

I do worry about creating barriers for participation for a lot of the people you'd really like to get out in the field, people who haven't had a whole lot of field experience, so funding that trip in a more permanent way is really high on my list.

The other thing that I've had the opportunity to do in some places is put technology into the hands of the students who are on those trips. I had a little technology grant when I was teaching at the University of the Pacific, and we bought five or six Go Pros and microphones, and some computer software to edit the GoPro films, and we had students make movies of the trip. It's a really nice way to keep the students involved, especially some of the techie students who might not be as excited to be out from behind the computer screen. It magnifies the impact of the trip—you can produce videos for public consumption that get other people talking about it, and get other students excited about it, and that can really be an educational opportunity. So, I think that would be a way I'd spend some of the money—on that technology.

And then the last thing, and you see this increasingly with PhD students—they realize they need a skill, but they don't want to take a whole class for it, so they take a short intensive workshop on it. For instance, a Geographic Information System (GIS)⁴ workshop for a weekend where students will learn how to do GIS, programming, or statistical analysis. I think those kinds of experiences could be really good for environmental law students who don't have a science background and haven't worked with scientists. What can you do with GIS programming? What can we do with remote sensing?⁵ Learning about some of the new statistical methods and what those things mean and the strengths and weaknesses, I think, would be really valuable for environmental law students.

⁴ U.S. Geological Survey *What is a Geographic Information System (GIS)?*, U.S. DEP'T OF THE INTERIOR, <https://www.usgs.gov/faqs/what-geographic-information-system-gis> (last visited May 9, 2022) (“A Geographic Information System (GIS) is a computer system that analyzes and displays geographically referenced information. It uses data that is attached to a unique location.”).

⁵ U.S. Geological Survey, *What Is Remote Sensing and What Is It Used For?*, U.S. DEP'T OF THE INTERIOR, <https://www.usgs.gov/faqs/what-remote-sensing-and-what-it-used> (last visited May 9, 2022) (“Remote sensing is the process of detecting and monitoring the physical characteristics of an area by measuring its reflected and emitted radiation at a distance (typically from satellite or aircraft).”).

Dean Davies:

These are all great ideas, and I think I'm going to have to talk to Sarah offline about how to do four things with a small amount of money instead of just one or two.

I've often found that being immersed in a place or an experience really does add to how well one internalizes and learns the material and the context in which it operates.⁶ I really like the idea of some kind of short, intensive field study course. I know Bob Adler at Utah has done one in the past on water issues where you go see a dam or a river and do a tour of the state for a week or two and really immerse yourself in the field that way.⁷ I thought of doing something similar in Ohio with energy facilities—go to a nuclear plant, a coal plant, a mine, or see some shell methane.

A second idea, sort of alluded to, is doing something that mimics what is done in some of the other fields where you think about a spring break trip that works on immigration issues or some kind of poverty law issue⁸—but to do that in an environmental context where it's learning and service and application all at the same time.

And then this one's maybe in a bit of a different direction, but one thing I've noticed about the legal field is that a lot of students write scholarship. I'm not sure that's as common in other disciplines. For a small amount of money, I wonder about hosting a student-focused scholarship conference.

⁶ See Barbara Marras Manner, *Field Studies Benefit Students and Teachers*, 43 J. OF GEOLOGICAL EDUC. 128, 129 (1995) (finding field trips increase student understanding and provide greater retention).

⁷ See *The Law Dean Series: Robert W. Adler*, OKLA. LEGAL GRP., <https://www.oklahomalegalgroup.com/the-law-deans/robert-w-adler-university-of-utah-s-j-quinney-college-of-law> (last visited May 9, 2022) (emphasizing the importance of real-world experiences outside of the classroom).

⁸ See *Spring Break Highlights 2019: Immigration*, AM. BAR ASS'N (Apr. 12, 2019), <https://www.americanbar.org/groups/center-pro-bono/publications/pro-bono-exchange/2019/spring-break-highlights-2019--immigration/> (providing examples of schools that participate in spring break trips focusing on immigration and poverty issues); see, e.g., *Students Gain Experience in Southern Justice Spring Break Mission Trip*, DUKE L., <https://web.law.duke.edu/features/2004/mission/> (last visited May 9, 2022); *Spring Break Pro Bono Trips*, HARV. L. SCH., <https://hls.harvard.edu/dept/clinical/spring-break-pro-bono-trips/> (last visited May 9, 2022).

II. HOW WOULD YOUR ANSWER CHANGE IF IT WAS A BIG AMOUNT OF MONEY AND YOU GOT TO DREAM BIG?

Dean Davies:

I mean, that's when you get the dean's eyes really big, you know, an unlimited gift. One of the coolest models I've seen in terms of a really transformative move, as an institution, is a school called the Florence School of Regulation, out of the European University Institute in Italy.⁹ They focus on a bunch of different areas of regulation, such as water, transport, and energy markets, and they pull together scholars from a bunch of different disciplines.¹⁰ They're doing research, workshops, outward-facing public activities, and really pulling that all together. I would love to see a school do something like that, where you're bringing in everybody in our field and you're branching out beyond the law. I know there are some collaborations at universities where they're trying to push in this direction, but to build from the ground up would be incredibly cool. One way you might do that is to start with one aspect of our discipline. Maybe you'd start it on water, or land, or energy, and bring in big names and start there. So that becomes the expertise, the clearinghouse for where these conversations are occurring, where the cutting-edge scholarship is being driven forward in a way that's both academic but also public facing. I think that's where I would put the money if I had this giant gift.

Professor Börk:

So first, more clinical experiences. I think clinical experiences are invaluable—the more you have for students, the better.¹¹ They

⁹ See generally *Advancing Regulation in Europe and Worldwide*, FLORENCE SCH. OF REGUL., <https://fsr.eui.eu/> (last visited May 9, 2022) (“The Florence School of Regulation (FSR) is a centre of excellence for independent discussion and knowledge exchange with the purpose of improving the quality of European regulation and policy.”).

¹⁰ *Residential Training*, FLORENCE SCH. OF REGUL., <https://fsr.eui.eu/training/residential/> (last visited May 9, 2022) (providing examples of different courses offered such as Gas Regulation and Regulation and Integration of Renewable Energy).

¹¹ WILLIAM M. SULLIVAN ET AL., *EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW* 87, 120–22 (Jossey-Bass 2007); ROY STUCKEY ET AL., *BEST PRACTICES FOR LEGAL EDUCATION: A VISION AND A ROAD MAP* 113, 141, 185

respond to some of the critiques in the Carnegie report on online education, generally.¹² You can really do specialized clinics in an interesting way. We have a water justice clinic at UC Davis, and the students really get engaged with that and love working in that.¹³ I'd really like to run a dam removal clinic someday, and that could be kind of what Lincoln's talking about. We have this amazing UC Davis Center for Watershed Sciences with people who study dam removal.¹⁴ So let's create a clinic, where we bring together tech, science, and law, to actually look at the permitting you need to pull these dams out, and get the students involved in that over the two or three years that they are in law school. It's a really rewarding experience for the students and offers an opportunity to make real environmental improvements.

Also, more scholarships for students. In environmental law, students are competing for the top jobs at environmental nonprofits that don't pay very much at all.¹⁵ It's like the lower the job pays, the harder people fight to get that job. And that doesn't work for a lot of our students who come out with a lot of debt. Doing something more to address that would be a good way to use that money. I'd also like to

(2007) (discussing the benefits students gain from engaging in clinical experiences, such as responsibility, professionalism, and conscientiousness); see Jeff Giddings, *Contemplating the Future of Clinical Legal Education*, 17 GRIFFITH L. REV. 2–3, 9 (2008) (comparing clinical experience approaches in other countries); Colleen F. Shanahan et al., *Measuring Law School Clinics*, 92 TUL. L. REV. 547, 572–73 (Feb. 2018).

¹² William M. Sullivan et al., Summary, *Educating Lawyers: Preparation for the Profession of Law*, 9 (2007).

¹³ *Water Justice Clinic*, UC DAVIS SCH. OF L. (Oct. 29, 2021), <https://law.ucdavis.edu/clinics/water-justice-clinic.html>.

¹⁴ See *Projects and Research Programs*, CTR. FOR WATERSHED SCI., <https://watershed.ucdavis.edu/research/areas> (last visited May 9, 2022) (provides examples of research projects focusing on watersheds like the Central Valley Floodplains and Sierra Nevada Strategies).

¹⁵ See *Environmental Lawyer*, UNITY COLL., <https://unity.edu/careers/environmental-lawyer/#salary> (last visited May 9, 2022) (showing how entry-level environmental lawyers make less money starting off); Terry Mann, *Salaries for Nonprofit Lawyers*, SAPLING, <https://www.sapling.com/12085448/salaries-nonprofit-lawyers> (last visited May 9, 2022) (explaining how nonprofit lawyers make far less money than their counterparts in other practice areas); *Nonprofit Lawyer Salary*, ZIPRECRUITER, <https://www.ziprecruiter.com/Salaries/Nonprofit-Lawyer-Salary> (last visited May 9, 2022) (showing the average salary of nonprofit lawyers is \$71,548).

see more of the 3+3 programs where you can get students onto an environmental law track from the undergraduate level.¹⁶ I'd particularly like to get more science students coming through and head them into law school as opposed to heading off to be engineers or to medical school, for example.¹⁷ You can get those students through their degree programs more quickly and help them reduce their debt load.¹⁸ Plus, those programs can actually generate additional revenue for the institution by bringing in students who otherwise wouldn't attend law school.¹⁹ But it takes some money up front to get it going.

And then lastly, I'd provide more of the things that we should be offering. More formative assessments, more practical experience takes more time and more people. So, hiring TAs from upper levels within the law school—third-year students—to help with classes, hiring recent graduates as environmental fellows, getting more support for professors in the classroom, and giving students more feedback is a really good use of funds.

Professor Krakoff:

I already spent my small amount on some of the things that Professor Börk mentioned, which I totally agree with, and I love Professor Davies' vision, too. That's a tremendous vision. So, the thing I could say that's complementary, but different, is picking up on the theme of student debt. If I had a huge gift, I would make our law school cheaper across the board. Because scholarships are important, loan forgiveness is important for the reasons Professor Börk already

¹⁶ See Gabriel Kuris, *What to Weigh About Accelerated B.A.-J.D. Programs*, U.S. NEWS: EDUC. (Nov. 9, 2020), <https://www.usnews.com/education/blogs/law-admissions-lowdown/articles/accelerated-ba-jd-programs-what-law-school-applicants-should-know> (stating how 3+3 programs allow students to earn a B.A. and a J.D. in six years rather than seven).

¹⁷ See Mark A. Cohen, *Wanted: STEM Graduates for the Legal Industry—and Some Reasons They're Not Applying*, FORBES (July 24, 2017), <https://www.forbes.com/sites/markcohen1/2017/07/24/wanted-stem-graduates-for-the-legal-industry-and-some-reasons-theyre-not-applying/?sh=55e7a7292b72>

(recognizing STEM students are turning away from law school and into engineering and technology, but law schools need STEM students because the profession is becoming more digitized).

¹⁸ Kuris, *supra* note 16.

¹⁹ See *id.* (noting the benefits of 3+3 programs to students who may not otherwise be able to afford and attend law school).

articulated, but what seems to be happening with my students is those scholarships are so hit or miss. We can't possibly fund, with scholarships and loan forgiveness, all the students who want to be nimble throughout their careers, about being the kind of environmental advocates that we need today—responding to a range of challenges, the justice and equity issues, and climate change. We need to do that to make the case for all our students that this is important work that you all should be doing without worrying about having to make enough money to pay off your debt load. I would use this unlimited gift to endow the tuition to make the law school cheap across the board and permanently. And that's really changed since I went to law school—that was the structure of tuition at public law schools at UC Berkeley and Davis.²⁰ And it's just not anymore and seems cheaper than many so-called publics. I think saddling our students for the next generation of environmental challenges with this kind of debt is wrong. So, I would tackle that.

III. WHAT ROLE IS TECHNOLOGY GOING TO PLAY IN THE NEXT FIVE TO TEN YEARS IN ENVIRONMENTAL LAW COURSES AND CURRICULA?

Professor Börk:

There are certain things that technology makes work a lot better, so it's about applying it to those things and not using technology just for its own sake. For example, last fall I had to modify my field course, California Environmental Cases and Places,²¹ because of COVID, forest fires, and national forest closures in California. Normally, we travel as a class and visit the locations where famous environmental cases came from, like Mono Lake or Death Valley.²²

²⁰ See Howard B. Miller, *A Fresh Look at California's Law Schools*, CAL. BAR J., <https://www.calbarjournal.com/August2010/Opinion/FromthePresident> (last visited May 9, 2022) (recognizing an increased tuition in California public schools that is comparable to private schools).

²¹ Karrigan Börk, *230C California Environmental Cases and Places*, UNIV. CAL. DAVIS (2021), <https://law.ucdavis.edu/registrar/courses/230c-ca-environmental-cases-and-places.html>.

²² See *Nat. Audubon Soc. v. Sup. Ct. of Alpine Cnty.*, 33 Cal.3d 419, 446 (Cal. 1983) (granting a request for reconsideration after finding California had an affirmative duty to account for public trust when planning and allocating water resources); *Cnty. of Inyo v. Dep't of the Interior*, 873 F. Supp. 2d 1232, 1246 (E.D. Cal. 2012) (holding that in 1979 the federal Bureau of Land Management intended to preserve Death

But last year, it felt like the whole world caught on fire—too many hurdles for a regular field course. So right before the class started, I switched to a format where each student was able to pick a case and then go on their own to the place where the case happened. I met with them ahead of time to talk about the science and the geology of the place they were visiting. Then they went and shot videos on their cell phones and came home and edited that. Our next class was watching these amazing student-created films of each site,²³ and they presented on their case and introduced the other students to the location. Then, we talked about that as a class and students would answer questions about the film they created. And it was great; it worked really well. The students were happy to be out of their houses and out in the field looking at actual things on the ground and not at a computer screen. I had a student who called in for class from the top of Mount Shasta, from eleven thousand feet—that was wonderful. And the class was much better than a normal class would be. Using technology to augment a normal class, or finding ways to get field experiences, is a good way of using technology.

I do want to sound a cautionary note on the idea of using technology to substitute for experiences. There's a big push that you see now for virtual field trips.²⁴ Geosciences is wrestling with this quite a bit, where people are taking virtual field trips, even virtual reality field trips, and there's a lot of research at the undergraduate level in particular about how well this works.²⁵ It shows similar learning outcomes to an actual field experience—you get similar learning and retention of knowledge that you would get by going to the place, both of which are better than normal classroom-based instruction.²⁶ And

Valley's unique biological resources by restricting vehicle activities; thus, county-claimed 19th century rights-of-ways could not be paved or upgraded).

²³ See, e.g., *Where the Mountain Was: The Story of Woodruff v. North Bloomfield Mining Co.*, YOUTUBE (Oct. 22, 2020), www.youtube.com/watch?v=kyQgGspH97A.

²⁴ See Holly Duskin, *Why Teachers Want Virtual Field Trips to Stay*, AM. ALL. OF MUSEUMS (Aug 18, 2021), <https://www.aam-us.org/2021/08/18/why-teachers-want-virtual-field-trips-to-stay/> (showing teachers' continued interest in virtual field trips because they are cheaper and more efficient).

²⁵ See Chris Mead et al., *Immersive, Interactive Virtual Field Trips Promote Science Learning*, 67 J. OF GEOSCIENCE EDUC. 1, 2–8 (2019).

²⁶ See *id.* (concluding retention rates following virtual field trips were higher than in class teaching).

you can get the interdisciplinary pieces that you want from a field experience, which is great, but it's just not as good as actually being there. There are certain student learning outcomes that we look for from a field trip—attitudes, emotions, identity, values, sense of place, and the things that you really want to serve with a field trip. It's clear to me that the virtual field trips don't have those same outcomes.²⁷ So I think technology is great, but it's not a substitute for the real thing. It's really important to keep an eye on that overall goal and not lose that to an embrace of technology that ultimately doesn't serve it.

Dean Davies:

I would make two points. First, I think it's clear that technology is changing the practice of law.²⁸ That's something that law schools have to address systematically and across the curriculum, not just within the environmental law curriculum. For instance, the ways that research is done, or how we can make the delivery of services more efficient, like wills and trusts.²⁹ Artificial intelligence is going to

²⁷ See Min Wang et al., *The Effect of Emotional Experiences in Fieldwork: Embodied Evidence from a Visual Approach*, J. OF GEOGRAPHY IN HIGHER EDUC. (Nov. 26, 2021), <https://www.tandfonline.com/doi/full/10.1080/03098265.2021.2005002>; Victoria Beth Sellers, *Assessment of Affective Responses to Classroom, Outdoor, and Virtual Geology Field Experiences* (May 2020) (Ph.D. dissertation, Clemson University) (ProQuest) (explaining that careful course design using VR and integrating individual outdoor experiences can mitigate some of these losses); Alexandra I. Race et. al., *A Comparative Study Between Outcomes of an In-Person Versus Online Introductory Field Course*, 11 ECOLOGY AND EVOLUTION 3625, 3625–30 (2021) (showing the field study outcomes of community building, self-efficacy, and connection to the field were lower in virtual trips than in field trips).

²⁸ Erin Degregorio, *Webinar Explores How Technology is Changing the Legal Profession*, FORDHAM L. NEWS (Oct. 20, 2020), <https://news.law.fordham.edu/blog/2020/10/20/webinar-explores-how-technology-is-changing-the-legal-profession/>; *Technology in the Law is the New Norm*, THOMSON REUTERS: LEGAL (Aug. 3, 2021), <https://legal.thomsonreuters.com/blog/technology-in-law-is-the-new-norm/>.

²⁹ David Lat, *How Artificial Intelligence is Transforming Legal Research*, ABOVE THE L. <https://abovethelaw.com/law2020/how-artificial-intelligence-is-transforming-legal-research/> (last visited May 9, 2022) (explaining how artificial intelligence is making legal research faster and more reliable); GERRY W. BEYER, *TECHNOLOGY'S IMPACT ON THE CHANGING FUTURE OF THE TRUSTS AND ESTATE PRACTICE* 16 (2020) (suggesting that because wills and trusts are now allowed to be created a signed remotely, they are easier and more efficient to provide).

change how we practice law, and some of that will creep into this discipline as well as into others.³⁰

The second point is that one of the core things I want any of my students, in my environmental and energy courses, to take away is the understanding that one of their fundamental roles as an attorney in this field is to be a translator. Whether you're translating what an economist, a scientist, or an industry specialist has to say, that has to be your role. Just like you have to become a specialist in an area that you're practicing in a case, whether it's litigation, tort, contract, or whatever. I want my students to take away that you have to really absorb that knowledge and understand that you have to immerse yourself in the way that science works or that market works in a particular case or area of law. Some of that is technology, and you can also use technology to help them grasp that concept. That is something you have to make explicit but then also deliver on, in terms of how you structure a course and how you're helping students integrate in that way.

Professor Krakoff:

I would echo the importance of GIS mapping skills and understanding for a lot of our work. A lot of the people who will be our witnesses or experts are going to be using those kinds of skills and remote sensing.³¹ I feel like one of the things we've learned in the pandemic are the limits of technology substitutions and the idea of a simulated field. All the research that's come to light lately, because of the amount of depression among young adults, shows very clearly how important it is just to be in a room with other people.³² Even just how

³⁰ See Avaneesh Marwaha, *Seven Benefits of Artificial Intelligence for Law Firms*, L. TECH. TODAY (July 13, 2017), <https://www.lawtechnologytoday.org/2017/07/seven-benefits-artificial-intelligence-law-firms/> (providing seven ways in which artificial intelligence can help law firms save time and money while producing better work); Rob Toews, *AI Will Transform the Field of Law*, FORBES (Dec. 19, 2019), <https://www.forbes.com/sites/robtoews/2019/12/19/ai-will-transform-the-field-of-law/?sh=c9a84f67f01e> (identifying how AI has made contract law, litigation prediction, and legal research easier and more reliable).

³¹ *GIS for Law Enforcement*, ESRI (Mar. 2012), <https://www.esri.com/content/dam/esrisites/sitecore-archive/Files/Pdfs/library/whitepapers/pdfs/gis-for-law-enforcement.pdf>.

³² Timothy Matthews et al., *Social Isolation, Loneliness and Depression in Young*

students like to study in libraries and coffee shops. It is apparently true that just being next to other bodies is good for your mental health.³³ We should keep in mind the importance of both brick and mortar learning together and live field trips. I don't care how good the artificial intelligence gets to be, there's no substitute for going to lava falls with your 15 students.

IV. WHAT THREE CLASSES DOES EVERY LAW SCHOOL NEED TO OFFER TO PREPARE STUDENTS TO PRACTICE ENVIRONMENTAL LAW IN THE UPCOMING DECADES?

Dean Davies:

I'm going to give an answer that may not be popular, but I'm going to give it anyway because it's the one I believe in. The three courses I would identify are: Administrative law, because to a large degree, that's all our field is—applied administrative law. Second, I'd suggest business associations or business organizations, whichever your school offers, and I say that as someone who took that class in law school and felt like I was drinking Metamucil every morning. But I just don't think you can interface with environmental law without having some of the knowledge from that course, whether it's in a litigation context or a regulatory context. Third, I'd promote some version of environmental law, natural resources law, or energy law. I'm somewhat agnostic on whether it even matters which one. I haven't seen any school that's tried to create a hybrid. That might be interesting.

Although we have these defined conceptions of what those courses are and what they try to cover—like the environmental law course is the pollution law course, the natural resources course is the land course—but at some level, what all those courses are really teaching are modes of interfacing with the environment from a legal or regulatory perspective. If you think about environmental law, it is all different ways to control or regulate pollution. Same thing in energy

Adulthood: A Behavioural Genetic Analysis, 339 PSYCHIATRY PSYCHIATRIC EPIDEMIOLOGY 339, 340 (2016); Stephanie L. Mayne et al., *Covid-19 and Adolescent Suppression and Suicide Risk Screening Outcomes*, 148 PEDIATRICS 1, 6 (2021).

³³ See Matthews et al., *supra* note 32; Mayne et al., *supra* note 32.

law—it is different ways to control markets or to moderate negative externalities. Part of what we’re trying to do in those courses is to give students an introduction into how to see those mechanisms conceptually, and how to compare and navigate them.

Professor Krakoff:

We’ve all been agreeing so far, and that’s boring, so I’ll take a different tack from Professor Davies, but not because I think there’s anything wrong with that conception. I think that a foundational course that teaches students the historical, intellectual, and political origins of how and why we have an environmental regulatory state is a key part of my ideal curriculum, and it is a core course in our curriculum. In recent years, I’ve amended it to include the history of the field’s exclusions—how at its origins and throughout it excluded Native Americans and incorporated the structural discriminations against Black and other People of Color.³⁴ So that is meant to provide a broad context for understanding how we came to have an environmental regulatory state and how it’s situated in our larger structural systems of law and political economy. That’s a good course as a core course, I think, because a lot of students will take it even if they’re just sampling, right? If they never take another environmental law course again, they’ll take our foundations course and have some sense of big issues driving the origins of the field and the political and historical context. I agree with Professor Davies about any of the statutory classes—pollution law, energy law, or any of the statutory administrative state

³⁴ See Van R. Newkirk II, *Trump’s EPA Concludes Environmental Racism Is Real*, ATLANTIC (Feb. 28, 2018), <https://www.theatlantic.com/politics/archive/2018/02/the-trump-administration-finds-that-environmental-racism-is-real/554315/> (discussing the disproportionate effects of pollution on people of color); Rachel Jones, *The Environmental Movement Is Very White. These Leaders Want To Change That*, NAT’L GEOGRAPHIC (July 29, 2020), <https://www.nationalgeographic.com/history/article/environmental-movement-very-white-these-leaders-want-change-that> (discussing disproportionately high cancer rates in majority Black communities); Jenny Rowland-Shea, *The Nature Gap: Confronting Racial and Economic Disparities in the Destruction and Protection of Nature in America*, CTR. FOR AM. PROGRESS (July 21, 2020), <https://www.americanprogress.org/article/the-nature-gap> (discussing the effects of pollution and coronavirus related hospitalization rates of Black, Indigenous, and Latinx communities).

classes. Once you learn how to learn those, they're pretty interchangeable, assuming students have taken something like a legislation and regulation or administrative law course. (I wanted to say they absolutely have to take American Indian Law and Climate Change Law and Policy, but notice I'm just mentioning them.) The third course would be a field seminar where you can incorporate different substantive areas in a place-based way. I'll refer back to our earlier conversations about the importance of that kind of learning—the impression it makes on students, the ability for them to cover multiple substantive areas at once and see the effect of law on people and how people interact with people who know about law.

Professor Börk:

I assume all law students know how important it is to take an administrative law or a legislation and regulation-type class, so I won't use that as one of my three, because I think it is self-evidently important that they have that. I'm not entirely convinced that the first half of administrative law is really necessary for everyone—all the stuff about balance of power and the sword of Damocles.³⁵ Most of my second- or third-year students haven't previously looked at the actual Federal Register publications by the time they take an environmental class, and looking at those and figuring out where that comes from in the statute is pretty key. Those are essential practice-related elements of administrative law.

First, the introductory environmental law class is key for a lot of the reasons: historical background and grounding, the problems we're trying to solve, and to recognize how bad things were before we had environmental laws.³⁶ Professor Robin Craig's got a great paper

³⁵ *Polett v. Pub. Commc'ns Inc.*, 126 A.3d 895, 918 n.13 (Pa. 2015) (“[This phrase] originated from a Greek fable in which King Dionysius suspended a sword by a hair over the head of Damocles, . . . to illustrate the grave danger that all rulers are constantly under. . . . [T]his expression has, thus, colloquially come to be understood to signify a threat of imminent danger.”).

³⁶ *Milestones in EPA and Environmental History*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/history/milestones-epa-and-environmental-history> (last visited May 9, 2022); Andrea Thompson, *How the Environment Has Changed Since the First Earth Day 50 Years Ago*, SCI. AM. (Apr. 22, 2020), <https://www.scientificamerican.com/article/how-the-environment-has-changed->

on creeping baseline syndrome that talks a lot about the importance of that historical grounding; I recommend that to all of you.³⁷

But one of the problems in environmental law education is that students come in and they're all excited about environmental law and want to do it because they camp and hike and then you crush them with all of the readings and all of the administrative law stuff. It's brutal. So, the field course is a necessary tonic to restore their spirits after you've crushed them in Introduction to Environmental Law. I will self-promote; I wrote a paper with a geosciences colleague on the importance of field courses and the role they can play, and a little bit about how we run ours.³⁸

The third course, just to have something a little bit different here, would be mental health courses because they have a really important role in law schools. This is something that that a number of schools have started to offer for mindfulness—a general introduction to mental health maintenance and how we take care of our brains.³⁹ I do some mindfulness exercises in my field class and the students seem to get a lot out of those. But given our track record in law as a profession,⁴⁰ and especially given the challenges that these students are

since-the-first-earth-day-50-years-ago/; Marina Koren, *Before and After: America's Environmental History*, SMITHSONIAN MAG. (Apr. 22, 2013), <https://www.smithsonianmag.com/science-nature/before-and-after-americas-environmental-history-38622578/>.

³⁷ Robin K. Craig, *Perceiving Change and Knowing Nature: Shifting Baselines and Nature's Resiliency*, in ENVIRONMENTAL LAW AND CONTRASTING IDEAS OF NATURE: A CONSTRUCTIVIST APPROACH 87, 88 (Keith H. Hirokawa, ed., 2015).

³⁸ Karrigan Börk & Kurtis Burmeister, *Cases and Places: A Field-Based Approach to Teaching Natural Resource and Environmental Law*, 68 J. LEGAL EDUC. 338, 339 (2018).

³⁹ Tom Fenner, *JD '76, Leads Mindful Meditation Class for Students*, 98 STAN. LAW. (June 2, 2018), <https://law.stanford.edu/stanford-lawyer/articles/tom-fenner-jd-76-leads-mindful-meditation-class-for-students/>.

⁴⁰ See *New Study on Lawyer Well-Being Reveals Serious Concerns for Legal Profession*, AM. BAR ASS'N (Dec. 2017), <https://www.americanbar.org/news/abanews/publications/youraba/2017/december-2017/secretcy-and-fear-of-stigma-among-the-barriers-to-lawyer-well-bei/>; Scott Mitchell, *Mental Health in the Legal Profession*, MINORITY CORP. COUNS. ASS'N (Sept. 2007), <https://www.mcca.com/mcca-article/mental-health-in-the-legal-profession/>; Scott Field, *Mental Health in the Legal Profession*, JDSUPRA (May 24,

facing; inheriting this world with a rapidly changing climate, with a huge loss of biodiversity,⁴¹ it's a stressful thing. Some of these papers I've written are so dark that it's hard to get through them, and I feel so bad for the students who are living this every day.

Dean Jennifer Rushlow:

I want to call attention to Helen Kang's great comment in the chat: "Much of what we do in the Environmental Justice Clinic covers administrative law, but matters are so dynamic that it would really take two teachers who can move with the docket to create a hybrid."⁴² I've thought about such a creature.

V. HOW DO YOU SEE ISSUES OF INCLUSION, JUSTICE, AND EQUITY
BEING INCLUDED IN THE ENVIRONMENTAL CURRICULUM MOVING
FORWARD?

Professor Krakoff:

There are a number of ways to make the issues of racial and gender justice woven into the curriculum instead of adding them on. One way is the foundation class I talked about earlier. Ours is called Foundations of Natural Resources and Environmental Law.⁴³ The idea is to make social justice and its legal aspects central to the course, rather than "here's Environmental Justice Day." For instance, when

2021), <https://www.jdsupra.com/legalnews/mental-health-in-the-legal-profession-2108878/>.

⁴¹ *UN Report: Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating,'* U.N. (May 6, 2019), <https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/>; *Loss of Biodiversity Poses as Great a Risk to Humanity as Climate Change*, *ECONOMIST* (June 15, 2021), <https://www.economist.com/technology-quarterly/2021/06/15/loss-of-biodiversity-poses-as-great-a-risk-to-humanity-as-climate-change>.

⁴² Question from Professor Helen Kang, Professor of L., Env't L. and Just. Clinic Dir., Golden Gate Univ. Sch. of L., Roundtable Talk at Vermont Law School, Environmental Law Education: New Techniques in the Classroom and Beyond (Feb. 25, 2021).

⁴³ *Natural Resources, Energy, and Environmental Law*, COLO. L. (2021), <https://www.colorado.edu/law/academics/degrees/llm-degree/natural-resources-energy-and-environmental-law>.

we're teaching about public lands, to also teach about how all public lands were once traditional Aboriginal lands and how the story of Indian law is intertwined with the story of both the emergence of private land and public land.⁴⁴ Also, the moments of possibility that get erased; the moment in the early 1970s where a broader environmental justice conception of environmental protection got left by the wayside.⁴⁵

Also, I think it's time for most schools that *can* have an expanded curriculum to have a specific environmental and/or climate justice class. There's a lot of student interest and demand for that as part of the upper-level class curriculum.⁴⁶ Also, integrating field trips as we have discussed. Those are terrific ways to make those issues real for students and to incorporate students into classes who don't otherwise see themselves in the field or in the curriculum. If you make a class centered around the experience of the Latinx population in Colorado, for example, you're going to help show that the field is a place where everyone can see themselves. That's one important way we can start to shift. We also need to do a lot more so that the field itself presents as something that isn't just white and privileged. We know that's only part of the story, but it's not an insignificant part of the story of environmental law.⁴⁷ So, to counter that in every way we

⁴⁴ See Sarah Krakoff, *Public Lands, Conservation, and the Possibility of Justice*, 53 HARV. C.R.-C.L. L. REV. 213, 215–16 (2018) (describing the “dark side” of conservation history when the United States displaced Native Americans and violated their rights).

⁴⁵ See Jedediah Britton-Purdy, *Environmentalism Was Once a Social-Justice Movement*, ATLANTIC (Dec. 7, 2016), <https://www.theatlantic.com/science/archive/2016/12/how-the-environmental-movement-can-recover-its-soul/509831/>.

⁴⁶ JUAN C. GARIBAY ET AL., NAT'L COUNCIL FOR SCI. AND THE ENV'T, THE INCLUSION OF ENVIRONMENTAL JUSTICE CURRICULAR CONTENT IN INTERDISCIPLINARY ENVIRONMENTAL AND SUSTAINABILITY DEGREE PROGRAMS 6 (Jan. 2016), <https://www.gcseglobal.org/sites/default/files/inline-files/2016%20EJ%20Partner%20Report.pdf>; Madison Roth, *MSA Pushes for Environmental Justice Liberal Education Requirement*, MINN. DAILY (Dec. 16, 2021), <https://mndaily.com/270297/news/msa-pushes-for-environmental-justice-liberal-education-requirement/>.

⁴⁷ See Andrew Cohen, *The Intersection of Race and the Environment*, BERKELEY NEWS (Aug. 10, 2020), <https://news.berkeley.edu/2020/08/10/race-the-environment/> (explaining a weakness of mainstream environmental law is the deracialized context

can in terms of how we present to students, we do outreach to different student groups so they all see themselves and feel welcome in those courses and in the curriculum. Finally, we really have to face the question of the cost of legal education across the board. If we don't make it affordable, it will not be equitable. Our field in particular will not be equitable because of the difficulty of getting jobs after law school that pay enough. That issue has to be addressed to get at the issue of racial equity and exclusion.

Professor Börk:

One of the things I've really enjoyed since I've come to UC Davis is that we have the Aoki Center for Critical Race and Nation Studies.⁴⁸ The Center brings in professors who are teaching first year law courses and does a lecture focused on the critical race perspective for the class topic. This is great because you have these students who are coming to law school really excited about justice and they get thrown into this first year curriculum and that focus gets lost a little bit. I did the one on Property this year and walked them through a mapping exercise in California, looking at the environmental justice disparities in California through a really excellent environ-mapper that California puts out.⁴⁹ This integration of justice and equity across the board into everything you do is really effective because it becomes an expected part of a lot of classes that you will consider the disparate impacts and distributive justice issues really. By starting that in the first year, a school can really set the foundation that you need to bring that perspective into other classes. I've tried to do that in my environmental law course too, using a variation on that mapping exercise and asking the students to look at their own community and patterns of education, language, poverty, and environmental harm

in which it is presented); Jedediah Purdy, *Environmentalism's Racist History*, NEW YORKER (Aug. 13, 2015), <https://www.newyorker.com/news/news-desk/environmentalisms-racist-history> (detailing the racist history of American environmentalism, beginning with Madison Grant and persisting through the present).

⁴⁸ *Welcome to the Aoki Center for Critical Race and Nation Studies*, UC DAVIS SCH. OF L., <https://law.ucdavis.edu/centers/critical-race/> (last visited May 21, 2022).

⁴⁹ *CalEnviroScreen*, CAL. OFF. OF ENV'T HEALTH HAZARD ASSESSMENT, <https://oehha.ca.gov/calenviroscreen> (last visited May 9, 2022).

using the mapping exercise. Then they do a worksheet that they submit to reflect on the exercise.

If you joined the first workshop in this Emerging Environmental Law Curriculum series, I do some of the same things that Steph Tai described—working with worksheets and with exercises that students do as part of class.⁵⁰ I have a series of five or six of these and I was just blown away by the students' responses to that environmental justice exercise; they tied it to their lives, they were able to integrate their lived experience in their communities with this data they were getting, the language they were learning around environmental justice, and the origins of some of these harms. It was startling to me, really, to see how well and how clearly they saw these connections. It's powerful. I learned a lot from them, actually. It's so helpful because the students are pushing us on this constantly. If you don't teach it, they're on your case and asking for more of it. And I find that super helpful in terms of making sure I'm doing as much as I can to address these concerns.

Dean Davies:

It's really a duty of ours as educators to try to make sure that we're bringing this out in every aspect, right? I mean, if you think about environmental law, you can teach cost-benefit analysis without ever talking about race or justice. If you think about natural resources, you can teach about land preservation without ever talking about Aboriginal or Indigenous impacts. If you think about energy law, you can teach markets and economic regulation without ever talking about energy justice or energy poverty. But that's not the right way to teach those classes. The right way to teach them is to highlight those issues and force students to grapple with them. In everything we do, we need to be thinking about how to bring those issues to the fore. You can do that across the curriculum, and it's just our duty to do that.

⁵⁰ Keith Hirokawa et al., *Roundtable One: The Essential Environmental Law Curriculum*, 46 VT. L. REV. 552, 553 (2022) (describing, in conversation with Keith Hirokawa and Steph Tai, interactive approaches to legal education).

VI. SOMETHING WE’VE KNOWN FOR A LONG TIME IS THAT ACCESS TO LEGAL SERVICES AND JUSTICE IS ONEROUS AND EXPENSIVE. HOW DOES THAT LACK OF ACCESS PLAY OUT IN ENVIRONMENTAL LAW AND THE ENVIRONMENTAL LAW CURRICULUM?

Dean Davies:

You heard a bit of silence because this is a hard question, right? In some regards, a lot of environmental law occurs at a level that is decently well-financed. You’ve got corporations that have in-house and external counsel.⁵¹ You have at least decently well-funded NGO groups that have arms devoted to litigation.⁵² And you have mechanisms available to allow the recoupment of attorneys’ fees that can promote litigation in this context.⁵³ But at the same time, there are

⁵¹ See *Corporate Outside Counsel Policies—Who Do You and Who Can You Represent?*, AM. BAR ASS’N (June 15, 2016), https://www.americanbar.org/groups/professional_responsibility/publications/professional_lawyer/2016/volume-24-number-2/corporate_outside_counsel_policieswho_do_you_and_who_can_you_represent/ (describing the professional responsibility limits on and protections for attorney-corporate client relationships for outside counsel); Ruiqi Chen, *Companies Prepare for In-House Lawyer Hiring Surge, Survey Says*, BLOOMBERG L. (Jan. 26, 2021), <https://news.bloomberglaw.com/business-and-practice/a-third-of-law-departments-to-hire-in-house-in-2021-survey-says> (explaining a recent uptick in hiring of in-house counsel for corporate clients).

⁵² See, e.g., *Legal Advocacy & Investigations*, ASPCA, <https://www.aspc.org/investigations-rescue/legal-advocacy-investigations> (last visited Apr. 30, 2022) (describing ASPCA’s Legal Advocacy & Investigations department’s support of law enforcement investigations and prosecutors pursuit of animal cruelty and animal cases in New York City and nationwide); *Everytown Law Fund*, EVERYTOWN, <https://everytownlaw.org/fund/> (last visited May 9, 2022) (launching the Everytown Law Fund to support “impact litigation to advance the right of every person to be free from gun violence and to speak, work, learn, pray, assemble, protest, and vote without fear or intimidation.”); *Advocacy & Litigation*, NAACP, <https://naacp.org/issues/advocacy-litigation> (last visited May 9, 2022) (initiating lawsuits on behalf of plaintiffs to “ensure equitable treatment and opportunities when it comes to voting rights, education, economic empowerment, criminal justice, and health, including environmental justice,” and partnering “with other civil rights organizations, law firms, and law schools to secure the resources necessary to assess and prosecute cases.”).

⁵³ See Nicholas N. Nierengarten, *Fee-Shifting: The Recovery of In-house Legal Fees*, 39 WILLIAM MITCHELL L.R. 227, 227–29, 234, 238, 239–44 (2012) (identifying

disparities in terms of access to these services, and there are certainly ways in which that manifests in society to the detriment of people who are underserved.⁵⁴ An obvious answer in part is clinics that provide additional services, although obviously those are expensive to run and don't fully fill the services gap.⁵⁵ There are also other ways that the academy can help fill that gap in terms of advocacy. I'll mention one of the coolest examples I've seen, which is using courses to have students do work that provides legal advice to the world through sort of quasi-clinical experiences. I know Hari Osofsky has done this in the past using some of her courses.⁵⁶ And another one of my co-authors, Penny Crossley, who teaches the Sydney Law School in Australia, has done this as well.⁵⁷ One thing Penny does is have her students complete research papers that can be shared with less developed countries' governments to help them work on law reform. I know that Hari's done something similar with having the students do work that might advise the World Wind Energy Association or other NGOs on issues they're

exceptions for and methods of recouping attorneys' fees—via the lodestar, market-rate, or cost-plus approach—and providing tips for pursuing such methods).

⁵⁴ See *Access to Justice: 2010–2018*, U.S. DEP'T OF JUST. <https://www.justice.gov/archives/atj> (last visited Apr. 30, 2022) (indicating the U.S. Department of Justice established the Office for Access to Justice in 2010 to address inconsistencies in fair and accessible criminal and civil outcomes depending on wealth and status); Gillian K. Hadfield, *More Markets, More Justice*, 148 DÆDALUS: J. AM. ACAD. ARTS & SCIS. 37, 38–39 (2019) (arguing access to the justice is not affordable because of complex rules and procedures and promoting optimized complexity to better serve the underserved).

⁵⁵ See Jeff Selbin, *Defending Law School Clinics from Political Interference*, L.A. DAILY J. (Apr. 13, 2010), <https://www.law.berkeley.edu/article/defending-law-school-clinics-from-political-interference/> (stating that law school clinics help fill the “justice gap,” but have been vulnerable to industry and legislative attacks on their funding sources); see also Rebecca Nieman, *Down But Not Out! How Law School Clinics Can Help Bridge the Small Claims Court Access to Justice Gap*, 35 BUFF. PUB. INT. L.J. 119, 120, 124, 154 (Sept. 1, 2016) (addressing the pervasive “justice gap” targeted by law school clinic work and advocating for expanding these non-cash-cow clinic services for small claims disputes).

⁵⁶ See PENN ST. L., LEGAL EDUCATION FOR A CHANGING SOCIETY 1, 11–12 (2019), https://pennstatelaw.psu.edu/sites/default/files/documents/pdfs/Admissions/viewbook_2019_small.pdf (detailing courses and clinical opportunities with international reach).

⁵⁷ Associate Professor Penelope Crossley, UNIV. SYDNEY L. SCH., <https://www.sydney.edu.au/law/about/our-people/academic-staff/penelope-crossley.html> (last visited Apr.30, 2022).

grappling with. If you can help foment that work, I think it's an additional way that you can fill some of this gap of access to legal advice.

Professor Börk:

I mentioned the Water Justice Clinic here at UC Davis—a lot of our students participate in that and I encourage it. That's focused on mostly Central Valley communities that don't have access to good drinking water as required by the California human right to water, and figuring out how we can fulfill the promise the legislature made when they recognized a human right to water.⁵⁸ So clinics can be one way to do that.

I also find that a lot of my students are here at law school because they recognize that access to legal services is a huge problem. Environmental law students in particular recognize that access to legal services and justice is hard and that it's not evenly distributed and that it does drive a lot of the environmental justice problems that we see. So, they're here because they want to work on that exact issue, and we should encourage and enable their participation. In particular, we need to reduce their debt burden so that job path is a real option for them—so they don't end up getting pulled into the big firm gristmill or something similar where they need to be to make money to pay off the loans they've taken to get there in the first place. The financial aspect is really a key to recognizing that vision.

Professor Krakoff:

Law schools can play a powerful role in encouraging Bars that aren't typically associated with pro bono work to get involved in it. In my version of a water justice project, we have a public service project called the Acequia Project.⁵⁹ We provide free water rights

⁵⁸ See *The Human Right to Water in California*, CAL. OFF. OF ENV'T HEALTH HAZARD ASSESSMENT (Jan. 28, 2021), <https://oehha.ca.gov/water/report/human-right-water-california> (affirming Assembly Bill 685 recognized Californians' right to clean, safe, and affordable drinking water and providing the Human Right to Water Framework and Data Tool to measure State progress toward realizing the right).

⁵⁹ *Acequia Assistance Project*, UNIV. OF COLO. BOULDER, <https://outreach.colorado.edu/program/acequia-assistance-project/> (last visited Apr. 30, 2022).

representation to low-income farmers in the San Luis Valley.⁶⁰ It's mostly my students and I, but in order to cover all the cases, we recruit water law attorneys to help pro bono by supervising my student attorneys. It's not a clinic, it's a public service project, but it's functionally equivalent. We can staff it on the cheap because I just asked water law attorneys to do pro bono work, and they are so excited to do that because a lot of them went into water because they were idealistic environmental law students. There are a lot of jobs in water in my region, but there aren't that many opportunities that present themselves to water law practitioners to do pro bono work. You know, they're not trained as civil rights attorneys, they don't always feel comfortable taking a pro bono legal aid case. So we've had a lot of success at cultivating a pro bono aspect of the water law Bar in Colorado. I suspect that could be true more widely of environmental law and property law practices. Professor Börk mentioned too, as a way to help expand low income or at least sliding scale services for client needs.

VII. HOW DO YOU APPROACH ASSESSMENT AND GRADING IN YOUR FIELD COURSES AND EXPERIENTIAL LEARNING?

Professor Krakoff:

It's about the importance of multiple ways of assessing, whether in field courses or other courses. It's been an important addition to the way all law teachers think about what we're doing—to pay attention to the question of whether students are learning and obviously multiple ways of interacting with and evaluating them is the way to do that. For me, the more I can get my law students to write, the better. So, if it's a field seminar, we're meeting weekly building up to the trip, and I have them do weekly reflection pieces on what we're reading, just to get students writing regularly. They're limited to a page or two at the most so that I can give really detailed feedback on their critical analysis—like do they know how to read some complicated article or legal decision or whatever at this point, and also line-by-line micro editing, which they typically don't get from us. This is in addition to their big research paper, which is the core requirement of

⁶⁰ *Id.*

the class. I tell them all the time how important good writing skills are even in this day and age, and that those will carry them throughout their careers, no matter how much law practice changes.

Professor Börk:

When I was at the University of the Pacific, I was co-director of the Environmental Studies Program, and we had to do curriculum mapping for the program. It was a burdensome process, but ultimately it was really useful. We took the five outcomes that students were supposed to graduate with and mapped those back through the courses where they would master those particular learning objectives or particular outcomes. And then the assessments in those classes were supposed to track with the outcomes we expected from the courses. It sounds like, Sara, from what you were describing, you have something like that with your environmental law courses. And I'm curious, Lincoln, if there's something similar that you all do across the curriculum. I know law schools tend to have less control over what teachers are teaching in specific classes. But it can really guide how you choose what to assess and it seems like a useful thing to think about in the law school context.

Dean Davies:

Yes, we have that across the curriculum. I think a lot of schools are working on that to implement ABA accreditation requirements. One thing I've seen with that is it's tempting to say that every class meets every objective when in fact, that can't possibly be the case. An element of honesty and transparency there in terms of figuring out which courses are actually introducing, developing, or mastering those skill sets or those learning objectives is really important. I think you have to be honest with yourself about what it is you want the students to come away with and then try to assess it appropriately. If it's a skill set, then you're doing that in a formative way, and what you're trying to measure is progress toward a certain level of excellence. Whereas, in my courses in this field, what I'm often trying to do is to make sure students are participating in some way and getting some immersion in some of the information. In energy law, for instance, we run a simulation of markets, either electricity markets or oil markets, where what I'm really trying to get them to do is apply and get a feel for some

of the theoretical material we've been learning. In that context, I just measure the participation, but if they're writing a paper, like Sara said, then it's how they are improving over time and getting the work to the level of excellence we expect in that skill set. And so I think, you know, A) tying those things to what you're trying to measure and B) being clear and transparent to students about what it is you're trying to measure.

Professor Krakoff:

What I call our "developmental curriculum" in our natural resources environmental area, is deliberate and preceded the whole discussion about outcomes-based assessment and all that. But I do want to acknowledge the reality of some of law professors and the degree of independence and academic freedom they want in their course offerings. There's a limit, I think, to how well you could map it if only one person had control. The second thing I would say is to some extent, the bureaucratic recordkeeping of the mapping exercise is a challenge. The administration of trying to figure out if our students are learning, I really worry sometimes, displaces our ability to teach students and make sure they're learning. So for me, it's a fine balance between taking that question seriously, but frankly, not taking all the bureaucratic exercises that some of our accrediting bodies impose on us, you know? Seriously enough to do the job and know we're doing it right, but not so seriously that they interfere with our ability to actually do the core aspects of our teaching jobs.

Professor Börk:

Writing a curriculum map is terrible, but having thought through a curriculum map, I think is helpful. It's kind of a catch-22, but I totally get it. I hated doing it, but it did make us realize we were missing certain things or certain types of experiences. It makes for a better program overall.

VIII. QUESTION AND ANSWER SESSION

The following questions were raised by faculty members in the virtual audience during the roundtable. Each question is followed by the panelists' response. Not all panelists responded to all questions.

- A. *“What do you think about things to do in the absence of additional funds? What would be some of the things you would start to shift under the existing budgetary restraints you have?”*⁶¹

Professor Börk:

We all talk about limited resources and we understand trade-offs as part of our discipline. That doesn't mean there aren't other resources you can find or leverage, right? One resource that I've seen is that alums often are eager to be engaged with their alma mater, and to share their expertise and their experiences. Whether that's using them in practice rounds for the moot court competitions, or as guest lecturers or adjuncts—maybe that's something you can talk to your academic dean about to offer an additional course. Or maybe it's something that's net neutral in terms of the law school's budget to rotate courses over time. I think taking a fresh look at the curriculum is something that can be done. There's lots of opportunities there in terms of bringing in additional alumni engagement: you can think about career panels, et cetera, and there's lots of ways you can do this to enrich the student experience.

One of the things that I've really enjoyed with teaching remotely and on Zoom is that it's so much easier to bring people into the classroom to speak. I brought in practicing lawyers, some of my law school classmates from way back when . . . We're having a property career day this spring, because my property students keep asking me: what do you do in property? How is this an actual thing beyond, like, future interests? People are excited to talk about their research, so if there's an article your students are interested in, try to

⁶¹ Question from Heidi Gorovitz Robertson, Professor of L., Dir. of Student Success, Clev. State Univ. Clev.-Marshall Coll. of L., Address at the Roundtable Two Law Education: New Techniques in the Classroom and Beyond (Feb. 26, 2021); see Heidi Gorovitz Robertson, CLEV.-MARSHALL COLL. L., <https://www.law.csuohio.edu/meetcmllaw/faculty/robertson> (last visited Apr. 30, 2022).

bring in the people who wrote that article. Using Zoom in that way is great and it's something I plan to keep doing after the pandemic.

Also, I'm dedicated to field experiences, and I think they are the best experiences I've ever had. I think clinic is a close second and it's the best experience that I've had both as a teacher and as a student. I think there are ways to pay for those that don't put costs on the students. I'm trying right now to build a CLE model where firms donate money and then they get to send along a lawyer or two on the trip and they knock out a year's worth of CLE over a four-day weekend. If you get three or four firms to put in money, that covers the cost of the trip. But I also do self-directed field trips like the one I talked about this year, and I've run that a number of times. I did that for a water law course. You give the students 20 or 30 options that they can choose from and they go on their own. They shoot some video to show that they're actually there and come back and write a reflection afterwards. And that's free. It gets them out into the field to actually see how things are working. It could be: "Go to a hatchery and see what a fish hatchery looks like"; "Go find an easement or no trespassing signs. Are those real? Why can't you trespass there? Is that enforceable?" So that's something you can integrate into classes across the whole curriculum. That ties classes which can tend to be a little esoteric to real changes on the ground and the world as we experience it. I think that's a really important key to give students as part of this educational process.

*B. "I didn't hear anyone mention local environmental law as a critical course in the environmental curriculum. But many of our students will address environmental issues in local matters before practicing under federal laws. What role could/should local governance play in the curriculum?"*⁶²

Dean Davies:

I think that Professor Hirokawa's right, and one of the failings of law schools or maybe a blind spot of law schools is that we don't

⁶² Professor Keith Hirokawa, Professor of L., Albany L. Sch., Address at the Roundtable Two Law Education: New Techniques in the Classroom and Beyond (Feb. 26, 2021).

pay very much attention to local and state law.⁶³ In part, some of our schools are serving national markets. But also, in part, we don't always have experts on staff that understand local law as well. Some of that gap gets filled through clinics or other experiential opportunities. But I think Keith is absolutely right to point that out as an area where we can all improve.

Professor Börk:

I try and do that a little bit through my worksheet exercises. I'll spend three days lecturing on the Clean Air Act and then have a kind of implementation of the Clean Air Act day where I give them a bunch of links that they need to use to track down things like: how do you get a permit in California under the Clean Air Act? Who's actually making those decisions? And that goes all the way down to county or multiple counties under an Air Quality Management Region or District. So it brings in the state law piece and then tries to help them nest that within the federal law. Some of the other more local environmental law stuff gets covered in our zoning class area or in some of the other classes that are kind of traditionally outside of the core environmental curriculum. But you're right, it's a key space. And it's going to be even more key dealing with adaptation to climate change and any kind of a viable future that we have.

Professor Krakoff:

I agree that it's important and we couldn't list every class that is really crucial. One way to incorporate local government in core environmental classes is to send students on one of those self-guided field trip experiences to a local planning or zoning board meeting. In my town of Boulder, environmental issues are sort of the nexus of environment and housing, which get right to the core of the justice and

⁶³ Most law schools do not offer courses in state law; rather, students often get exposure to the state laws if they work in a clinic setting. *See Course Descriptions*, N.Y.U., <https://its.law.nyu.edu/courses/> (last visited Apr. 30, 2022) (listing course offerings in broader federal and international issues, but not New York state law); *Courses: Spring 2022*, YALE L. SCH., <https://courses.law.yale.edu/courses/term/27> (last visited Apr.30, 2022) (listing no courses focused on Connecticut state law); *Course Catalog*, MICH. L. SCH., <https://michigan.law.umich.edu/course-catalog> (last visited Apr. 30, 2022) (listing no courses focused on Michigan state law).

environment nexus.⁶⁴ They're going to be talked about in any one of those meetings. And even if it's not, *per se*, a local government course, you could incorporate an element of it to just plant the seed in the student's mind that this is an important level of lawmaking for them to think about.

Professor Börk:

That's another one of those places where I think it's key that they're physically there. There's nothing as uncomfortable as watching the public interact with elected officials, all emotional and fraught as it is. And if you're watching on a screen, it's really easy to turn that off and start watching cat videos because it gets too difficult to sit through. So I think being there and feeling all the tension in the air is super key. Right on, Professor Krakoff.

⁶⁴ See *Boulder-Based Green Energy Group Makes Case for Density to Meet City's Climate Goals*, BOULDER BEAT. (Aug. 11, 2019), <https://boulderbeat.news/2019/08/11/boulder-based-green-energy-group-makes-case-for-density-to-meet-citys-climategoals/> (discussing how Boulder needs to change its zoning laws to allow for density to combat climate change); Mark Gelband, *Boulder Agrees on the Problems. Scholars Agree on a Simple Solution*, COLO. NEWSLINE (Sept. 14, 2021), <https://coloradonewslines.com/2021/09/14/boulder-agrees-problems-scholars-agree-solution/> (arguing for “abundant, compact, dense housing” to achieve a more diverse and sustainable community) (emphasis omitted).