

Contested Spaces: Exploring Multiple Perspectives on Land Stewardship in the Pikes Peak Region of Colorado

A. Executive Summary

The Contested Spaces seminar provides opportunities for participants to explore together how integrating multiple disciplinary perspectives on current issues of land stewardship in the Pikes Peak region of Colorado can help to develop skills in reflective judgment. Participants from a wide variety of different disciplines will engage in a series of learning expeditions designed to highlight some of the contested spaces that frame environmental problems. These contested spaces are geographical and ideological, but they are also personal spaces, and the seminar will offer rich opportunities both to explore such spaces and to develop multi-perspectival and trans-disciplinary methods of negotiating areas of contestation. Opportunities will include examination of *objective methods* of conflict management and stewardship (for example, wildfire mitigation efforts, economic cost/benefit analyses, or ecological studies of climate change), participation in *subjective methods* of assessing conflict (for example, river-rafting, night-time hiking, and environmental meditation), and investigation of *inter-subjective perspectives* on land stewardship (for example, water law in the Southwest, historical visions of the Pikes Peak region, and religious conceptions of the relation between the human being and nature). Each day of the seminar will involve both multi-disciplinary inquiry and time for personal contemplative reflection.

B. Proposal Narrative

I. Seminar Topic/Question

1. Environmental topics relating to land stewardship are pressing current issues of broad concern. For example, as we compose this prose, the media are focused on economic approaches to addressing climate change, the possible causes of wildfires in the Pikes Peak region and the potential role of hydraulic fracturing (fracking) as both a ‘clean energy’ source and a prospective groundwater pollutant. Land stewardship decisions impact the diversity, stability and beauty of ecosystems (Leopold 1949), water quality, water distribution, and energy and mineral extraction. Unlike ecological problems that are often limited to a scientific perspective of understanding how natural systems function, environmental issues are of broader concern because they usually involve conflicting human values. A liberal arts approach that honors multiple disciplinary perspectives more comprehensively addresses environmental problems by including objective methods for analyzing issues like public health, economics and ecological systems (food, energy, water); subjective methods for exploring our personal connection with nature, aesthetics and morality; and inter-subjective perspectives such as conceptions of justice, culture, power and religion.

One of the most important goals and enduring themes of a liberal arts education is the need for educating informed citizens who can commit to decisions with ambiguous answers. Thus, ACM faculty members should be concerned about helping their students become more proficient in reflective judgment, which we define as the skill of being able to bring closure to uncertain situations (Dewey 1933). John Dewey’s (1916) insightful ideas about the vital role of education to provide the skills necessary for effective democracy are as true today as they were almost 100 years ago. Resolving open-ended civic conflicts like land stewardship requires reflective judgment skills. We differentiate reflective judgment from critical thinking because the latter may include problems that have correct answers. The Association of American Colleges defines the need for reflective judgment when they suggest that: “[college] students need to learn...to be able to state why a question or argument is significant and for whom; determine what the difference is between developing and justifying a position and merely asserting one; and how to develop and apply warrants for their own interpretations and judgments” (cited by King and Kitchener 1994, p. 19).

The development and assessment of reflective judgment as it applies to land stewardship is a central organizing theme in our workshop that can be better understood through Kurt Fischer's (1980) skill theory, which we will introduce and develop in the seminar. King and Kitchener (1994) applied Fischer's skill theory to describe the acquisition of reflective judgment skills. They posit that reflective judgment requires relating knowledge (theory) and justification (proof). King and Kitchener's (1994) long-time work assessing reflective judgment indicates that most entering college students understand knowledge and justification but can only begin to relate the two, while most graduating seniors can successfully map knowledge and justification, at least in their disciplinary major. Fischer's skill theory and King and Kitchener's application of skill theory to reflective judgment, both key components of this proposal, are explained in greater detail Appendix I.

Based on a review of the education literature from 1992-2009, Spelt et al. (2009) conclude that "research into teaching and learning in interdisciplinary higher education has remained limited and explorative." Thus, we view this seminar as an opportunity for ACM faculty members to initiate new and important research on this subject. **Our working hypothesis in this seminar is that explicitly using multiple perspectives to address environmental problems will promote students' skills in understanding the relation between knowledge and justification. If this is true, we should see gains in reflective judgment for students more grounded in interdisciplinary study relative to students who might relate knowledge and justification from a single disciplinary perspective.** We hypothesize that an organizing principle for developing reflective judgment skills is *methodological pluralism*, the idea that understanding and employing multiple epistemological approaches to open-ended problems, such as conflicts over land stewardship, provides a more comprehensive analysis than any approach focused on a single epistemological method. In Question 2 we describe how we will use the principle of methodological pluralism to guide our land stewardship learning expeditions.

Though King and Kitchener (1994) developed the reflective judgment interview more than 20 years ago to assess college students' reflective judgment skills, the lectical reflective judgment assessment (LRJA) is a newly developed assessment tool relying on calibrated developmental scores based on students' responses to open-ended questions (described in detail in Appendix II). Seminar participants will have the opportunity to take and be scored (anonymously) on the LRJA before the seminar begins to become familiar with this new research and learning instrument. During the seminar we will learn how we can use such tools to more effectively help our students learn reflective judgment skills. Relevant lectical assessments have also been created to assess leadership, ethics, mindfulness, integral (multiple perspectival) thinking and developmental pedagogy. With a better understanding of these new assessment tools, seminar participants might consider, as a long-term goal, collaborating on a future ACM-wide proposal for studying the relation between interdisciplinary learning and students' reflective judgment skills.

While honoring multiple perspectives and promoting reflective judgment are enduring liberal arts themes that may attract broad faculty interest, we believe the strongest interest for enrolling in the Contested Spaces seminar will be from the many faculty members concerned about environmental and land stewardship issues that invite interdisciplinary examination from economic, legal, political, ethical, ecological, chemical, physical, spiritual, cultural, religious, aesthetic, historical, and critical perspectives. Such a broad range of perspectives should attract faculty members who teach in environmental studies and geography programs as well as from economics, political science, sociology, gender studies, history, philosophy, psychology, anthropology, art, music, English and religion, in addition to faculty members from across the natural sciences (e.g. biology, chemistry, physics, math and geology). Such broad faculty interest is warranted by the popularity of several recent ACM workshops on the environment and campus sustainability. Our proposed expeditionary learning approach for exploring and documenting case studies, combined with a focus on contemplation and mindfulness in a beautiful and serene natural mountain setting, will allow faculty members to look more broadly at their conceptions of stewardship

and to better understand their personal connection with the natural environment. As such, we believe this seminar will spark wide interest among ACM faculty from across the disciplines and divisions.

While broad faculty interest is essential to the success of the Contested Spaces seminar, what participants learn and take away from these ten days and follow-up after the seminar must be of importance to their students. The materials and pedagogical approaches we develop together must be useful for a broad range of advanced interdisciplinary classes that currently exist at participating campuses as well as new classes we may conceive during the seminar. We have reason to believe that environmental topics like land stewardship already spark great interest among ACM students. Almost every ACM campus has an environmentally oriented program of study, and most, if not all seem to be highly popular among ACM students. For example, the Colorado College Environmental Program had a 102% increase in majors over the last five years representing more than 100 (of our ~2,000 total) enrolled students each academic year. In addition, the American Association for Sustainability in Higher Education (AASHE) bases a significant portion of its widespread voluntary campus sustainability ratings (STARS) on the extent of sustainability-related courses *across* the campus. At Colorado College, several faculty members are seeking enhanced opportunities to learn about teaching sustainability-related classes (Means 2012), such as those we address in this seminar.

2. The team leader conceived of a “Seven-S” environmental education curriculum framework refined through several Colorado College Environmental Education and Environmental Inquiry classes. The framework is significantly informed by Ken Wilber’s “Integral Theory,” which defines four quadrants from the four possible combinations of interior (subjective)/exterior (objective) with individual/collective to categorize all possible epistemological perspectives (Figure 1). Wilber’s ideas provide the foundation for Esbjörn-Hargens’ and Zimmerman’s *Integral Ecology* (2009), a primary source of readings for this seminar.

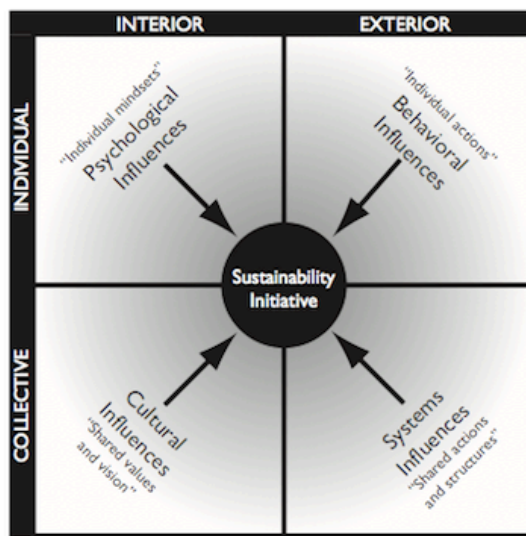


Figure 1. Integral four-quadrant model applied to sustainability (from Brown 2007)

While conceptions of **sustainability** often rely predominantly on systems approaches like technology and economic development (Brown 2007), the “Seven-S” curriculum framework suggests sustainability as an opportunity for liberal arts educators to explore a more holistic and reflective conception of **stewardship** (Figure 2). Seminar participants will learn to use this framework broadly by participating in three learning expeditions exploring regional case studies from multiple perspectives using different epistemological approaches from **science** (objectivity), **systems** (inter-objectivity), **spirit** (subjectivity) and **society** (inter-subjectivity). The uncertain and complex interdisciplinary problems

relating to land stewardship in the Pikes Peak region that we propose to explore as subjects for these case studies provide an ideal setting to test, critique and further refine the Seven-S curricular framework. We will also discuss how our case studies might enhance **service** learning through community-based research and classes.

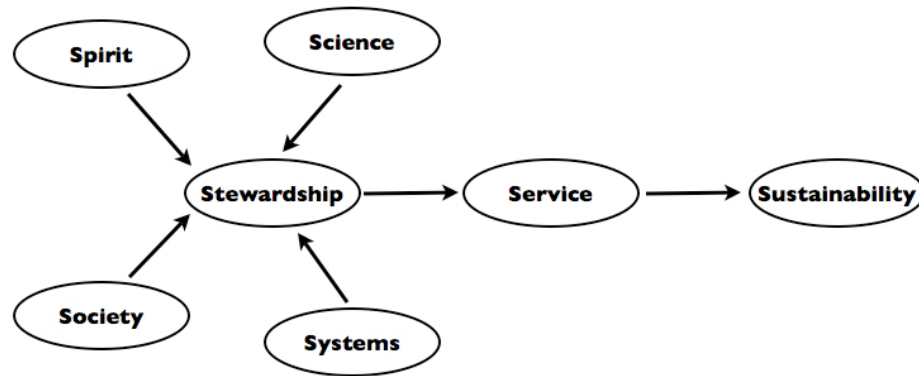


Figure 2. The Seven-S environmental education framework

When considered as a virtue, stewardship often becomes a contested concept due to conflicting perspectives. For example, deep ecological perspectives might consider stewardship through spiritual connection with the land a necessity for addressing environmental issues. Ecofeminist perspectives might view stewardship as caring and compassion needed to heal the planet, while critical perspectives might consider stewardship a hegemonic conception that establishes humans in a dominant role over nature. Thus, a framework valuing multiple, equally valid but different perspectives on stewardship provides a pragmatic approach for addressing environmental issues. By considering multiple perspectives related to environmental issues, stakeholders might find that their needs are better addressed and that a greater likelihood exists for finding satisfactory resolution. In their text, *Integral Ecology*, Esbjörn-Hargens and Zimmerman (2009) make a case for using multiple perspectives to address environmental issues and provide a summary of who and what should be considered and how to apply different epistemological approaches to environmental issues. They also include three case studies to demonstrate practical application of their framework. A broader appreciation and understanding of multiple perspectives is an enduring theme in most liberal arts curricula, often characterized as instilling a passion for learning from different disciplinary perspectives.

A holistic conception of stewardship embodies the goals of a liberal arts education, which are often defined by classic philosophical conceptions of knowledge that include understanding the “Good” (society), “Truth” (science and systems), and “Beauty” (spirit). By explicitly framing this more holistic conception of stewardship through an applied philosophical lens as we explore and develop our learning expeditions, faculty participants will pay particular attention to how we collaborate across our different domains of knowledge and we will ask whether this multiple perspectival conception of stewardship can enhance our students’ understanding of sustainability and their skills in reflective judgment, as well as how we might assess their progress.

The proposed ten-day seminar allows participants to work together as a whole group and in teams along with visiting faculty experts from Colorado College, the Catamount Center Board of Directors and Pikes Peak regional community members and stakeholders. Workshop participants will be chosen from a matrix of qualifications representing experience in teaching and research from the different domains of knowledge: 1) Systems Sciences (e.g. ecology, economics) 2) Social Criticism (e.g. gender studies, sociology, political science, philosophy) 3) Natural Science (e.g. geology, chemistry, physics, math) and 4) Spirit (e.g. psychology, religion, literature, art, philosophy). Exploring our case studies through

learning expeditions will require faculty participants to work in groups with others whose perspectives differ from their own and to become mindful of the ways in which different disciplines carry with them different contested ideological spaces.

In addition to honoring participants' multiple perspectives, we believe that a learning expedition format will make the seminar more fun and provide increased opportunities for contemplative work that will foster greater collaboration among participants. We define learning expeditions as in-depth investigations of an actual contested space through applied fieldwork and service (Miraglia & Smilan 2009). While an entire semester, quarter, or block class might normally be built around a single learning expedition, we believe that even a few days of this open-ended structure will provide greater flexibility and more chances for collaboration among participants than devoting the entire seminar to a single expedition. The team leaders, along with local experts, will model the learning expedition format by facilitating the first learning expedition to the Arkansas River and Mt. Princeton Hot Springs to explore water issues and land stewardship. For the other learning expeditions, we will poll participants during the planning period about which case studies are of greatest interest. Based on responses, we will select two additional learning expeditions and contract with appropriate experts to help as guides on these learning expeditions. The flexibility of the learning expedition format will allow all seminar participants to experience both leadership and creative roles in engaging the challenging stewardship issues found in the Pikes Peak Region. Expeditions will incorporate essential skills that may include writing, reading, research, problem solving, artistic expression, technological proficiency, collaboration, public speaking, and formal presentations. We expect that all participants will come away from the seminar with new ideas and methods with which they might approach stewardship issues closer to home.

Psychological research suggests that positive emotional states "broaden and build" people's thought-action repertoires (Fredrickson, 2001), enabling individuals to think more broadly, to be open to ideas, and to act in new ways. Consistent with this approach, an important design consideration for cultivating collaboration is to provide daily opportunities for fun by connecting with nature such as river rafting, hot springs, night hikes, swimming and canoeing, fly fishing, Native American ceremony, Tai Chi, yoga, meditation and solo reflection. While there will be ample time for highly academic dialog and writing, building camaraderie and collaboration requires that we provide time for experiences that allow for sufficient reflection time and create community through fun and laughter.

However, not all subjective experiences invoke fun and laughter. All three team members have a deep appreciation and expertise in contemplative work, both in the classroom and in our personal lives. As such, we have each designed serious and important mindfulness exercises requiring phenomenological reflection, which oftentimes leads to heart-felt tears as we confront past fears, neglected relationships and forgotten memories. Burggraf and Grossenbacher (2007) make a case that:

due to their inward focus, contemplative pedagogical methods can enrich and complement the disciplinary modes of inquiry already used in the liberal arts by enhancing the learner's personal connection with the subject matter. In many areas of academic inquiry, contemplative practices have been found to enhance attention, creativity, open-mindedness, the ability to hold paradox, and compassionate civic engagement.

As part of our contemplative work to promote mindfulness and a more "spiritual" conception of stewardship, each participant will be asked to write several phenomenological reflections that they will share in small groups. Our prior experience with undergraduate student essays indicates that sharing personal essays, poems, artwork and music forges closer relationships and builds trust among participants while enhancing our connections with nature and deepening our conception of stewardship.

3. The experiential nature of this seminar aims to provide several major insights for participants: a refined understanding of reflective judgment and the potential role of interdisciplinary environmental study on topics like land stewardship in promoting such skills (Question 1); the utility of methodological pluralism for addressing environmental issues like contested land stewardship (Question 2); methods for enhancing mindfulness through contemplating our relation with nature (Question 2); and an enhanced understanding of learning expeditions (Question 2). The resources we will create during the seminar include case studies developed during the learning expeditions that can be used in numerous advanced interdisciplinary classes; outlines for creating new and improving existing classes that can be taught at home institutions and field stations; tools for assessing our hypothesized relation between interdisciplinary learning and reflective judgment; an approach for incorporating methodological pluralism into advanced interdisciplinary classes that can be used to identify and study contested spaces outside the Pikes Peak Region; gaining new colleagues, and learning more about established colleagues who we will come to know in new ways; and enhancing knowledge of ourselves and our personal connections with nature. The leadership team also hopes to lead a future ACM workshop on conceptions of stewardship and its role in developing reflective judgment after the seminar is completed; to publish journal articles related to interdisciplinary learning, conceptions of stewardship and reflective judgment; and begin the ambitious task of an edited volume on the effectiveness of enhancing students' reflective judgment skills with multiple perspectival approaches to environmental issues.

II. Location/Site

4. Our host site, the Catamount Mountain Campus (CMC), is operated by Catamount Center, a 501(c)(3) foundation since 1997. CMC is an independent biological field station with research focusing on applied ecology and forest restoration on the North Slope of Pikes Peak in Woodland Park, Colorado. Howard Drossman and his wife Julie Francis founded Catamount Center in 1997 with a mission of inspiring ecological stewardship. The 177-acre site, surrounded by a mosaic of more than 200,000 acres of protected land, offers an exceptional setting for contemplative work and a central location for gaining access to numerous case studies relating to contested spaces in a region of noteworthy physical, biological and cultural diversity. Catamount Center and Colorado College are currently drafting an MOU in which CMC will host a residential Semester in Environmental Education (SEE) Program starting in fall 2014 that links local K-12 students with participating undergraduates and recent graduates interested in pursuing careers in environmental education. The SEE Program will be open for application to all ACM students as well as graduates interested in preparing for teaching careers. As an independent field station, CMC is available for seminar participants to host ACM consortium classes and/or faculty development workshops related to the seminar topic during the spring and summer months or January term.

The Catamount Mountain Campus has been the site of several contested cases involving land stewardship. Some believe neighboring mountain peak Tevah (Sun Mountain in Ute translation, commonly known now as Pikes Peak) played a central role in Black Elk's vision of the unity of humanity and the natural world (DeMallie 1984). The large number of Ute prayer trees on the property and in the vicinity is evidence of historical Native American ties to the land. More recent contested case studies include preserving 1600 acres of open space from commercial development for a continuous elk migration corridor; gaining contested water rights to preserve Catamount lakes and wetlands; a protracted and highly public land trade with Teller County for open-space recreation access; thinning trees on the forested lands to serve as a model site for wildfire mitigation; and negotiating land easements to protect essential regional water reservoirs that store drinking water coming from more than 100 miles away. These experiences have put Catamount Center in touch with a wealth of experts from federal and state agencies, politicians, interested stakeholders and non-profit organizations.

Geographically, CMC is situated on the edge of two great biomes. Just 20 miles from our mountain campus the expansive Central Short-grass Prairie runs into the Southern Rocky Mountain eco-region. To our south the Arkansas River flows out of the high country in a broad valley, isolating the Pikes Peak massif from the Wet Mountains and imposing Spanish Peaks of the Sangre de Cristo Range. To our west lie extensive montane grasslands, mixed-conifer forests and the 14,000-foot Collegiate Peaks. Here plant and animal species push their physiological limits, stretching their ranges to the edge of their tolerances. It is here that species interactions with both the living and non-living components of their environment are most easily understood. And it is here that the effects of long-term, regional-scale ecological perturbations, such as climate change, are often seen first. It is in part the transition between major biomes and life zones that makes our region especially interesting for studying land stewardship because, in a very real sense, our region is not a coherent biome, and this makes the ecological and environmental issues particularly interesting and difficult.

But the Pikes Peak Region is also a place of cultural contrasts. Agricultural settlements, mining towns, cattle ranches, and tourism form the rural economic base, while the southern Front Range city of Colorado Springs thrives on mixed industry, several military installations, and notable institutions of higher education. Where Native Americans, Hispanics and Euro-American settlers lived off the land a century-and-a-half ago, ex-urbanites collide with traditional rural lifestyles, farmers compete head-to-head with sprawling municipalities for land and water, and conservationists clash with the extractive industries over some of the richest mineral and energy reserves in the country. This place of extraordinary physical, biological and cultural diversity is truly a living laboratory for exploring contested notions of land stewardship.

5. The Pikes Peak region is an ideal location for this seminar because it offers a multitude of contested spaces relating to land stewardship that support opportunities for building skills in reflective judgment. While we will only explore two to four of the case studies described below, each choice provides an opportunity for participants to learn about land stewardship through multiple perspectives while developing skills in teaching for reflective judgment. Participants would identify the case studies of greatest interest before the seminar begins so that we can enlist the help of appropriate local experts and stakeholders (Appendix IV). We also assume that all participants will be leaders during parts of the learning expeditions as their expertise and experience allows by considering questions such as: What method(s) might my discipline most effectively use to address this issue? Can I teach this method(s) to my team members? How might I assist my team members in analyzing/representing the data? How might my data complement those data of others on my team?

Potential case studies (and approximate driving distance from CMC):

Pinon Canyon (50 miles): Fort Carson, the largest employer in Colorado Springs, is interested in expanding the area of its military base and training facilities into the plains just south of Colorado Springs. In doing so, the Army is proposing to compromise one of the most important cultural and historical areas in central Colorado. Citizen groups continue to engage in striking forms of activism to prevent this expansion.

Wildfire mitigation in the face of climate change (10-15 miles): A recent radio show on the Colorado College-supported public radio station, KRCC, addressed the question: “Why don’t people link recent wildfires in Colorado Springs to human-induced climate change?” The answers from a citizenry including fiscal conservative interests, fundamentalist religious viewpoints and military perspectives represent a diverse set of reasons and opinions.

Pikes Peak Highway and fish habitat (15 miles): The Pikes Peak Sierra Club, in the interests of the endangered cutthroat trout, recently won a legal case against the Pikes Peak Highway to reduce erosion

which forced the highway to pave its road to the top, which has served as the site of the second oldest auto race in the US on “America’s Peak.”

Conservation easements (1-5 miles): Organizations such as the local Palmer Foundation and the national Trust for Public Lands have launched an aggressive conservation easement campaign to purchase development rights to limit land development in Teller County. Does this best serve the needs of the rural Teller County residents?

Hydraulic fracturing (fracking) in Colorado Springs (40 miles): What happens when energy needs conflict with water rights? Can such a conflict keep local fracking at bay on the Banning Lewis Ranch just outside Colorado Springs?

Mineral development (20 miles): The Cripple Creek and Victor Gold Mine Company has supported many environmental initiatives in the region. Is this corporate ‘greenwash’ or a sincere effort to do the right thing?

Historic land use (0-10 miles): Who lays claim to the lands of the West, the Native American population forced to leave the area and move to less desirable lands or those who pay for the property?

Toxics remediation (20 miles): The residues from a 100-year coal gasification plant owned by the City of Colorado Springs are adsorbed on soils potentially leaching into groundwater adjacent to “America the Beautiful Park,” a place where young children play and nearby where people work.

Cattle ranching (50 miles): The Nature Conservancy purchased prairie for its ecological value, but Bohart Ranch is also a working cattle ranch. Can agriculture and conservation prosper together?

Numerous Colorado College professors, members of the Catamount Center Board of Directors and local experts have taught and participated in courses and workshops both at Colorado College and throughout the region relating to land stewardship, environmental education, geography and environmental studies. A list of these experts and organizational affiliations is provided (Appendix IV).

6. Over the past sixteen years, the Catamount Mountain Campus has been converted from a residential YMCA camp to an independent outdoor campus focused on post-secondary education. In the early years, Aspen Lodge was renovated to a classroom facility and eating area for hosting up to 32 people and Limber Pine Hall and the Watershed (bathhouse) were fully renovated and made ADA accessible. Over the past three years, Catamount Center has invested significantly in infrastructure renovations including installation of a potable water treatment system and two wastewater treatment systems. The Center is currently installing a commercial kitchen in Limber Pine Hall and is completing construction of a new state-of-the-art, artistically rendered and environmentally designed 24-person dorm with classroom, bathroom and shower facilities. While the site is only a 40-minute drive from Colorado College, it feels very remote with stunning views of Pikes Peak, dark evening nights for stargazing and access to miles of hiking trails. The classrooms and lodging offer a significant cost saving that will be used to enhance other aspects of the seminar and allow for field trips to off-campus case study sites such as the Arkansas River, Mt. Princeton Hot Springs, the USFS Manitou Experimental Forest, several military installations, the sites of the Waldo Canyon, Hayman, Buffalo Creek and Black Forest wildfires and their restoration efforts, the Garden of the Gods, numerous ranches, Pinon Canyon, the Cripple Creek & Victor gold mine and the Nature Conservancy’s Aiken Canyon Preserve and Bohart Ranch. The region also hosts organizations with striking ideological positions such as Focus on the Family and the New Life megachurch.