

CHAPTER 3

Reconciliation Ecology: A Christian Pedagogy of Place

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INTRODUCTION

Calvin College is a comprehensive liberal arts college within the Reformed tradition of historic Christianity. The Reformed tradition of Christian faith affirms and seeks to understand God's redeeming purposes toward the entire creation. This confessional identity informs and shapes Calvin's vision of education, scholarship, and community.

Reformed theology understands the whole of creation to be inherently good (Gen. 1), but because of sin it has become distorted and damaged (Romans 8:22). Although the relationships within the creation have been marred, God's abiding love for all He has made has not diminished. Jesus Christ fulfilled God's covenant with the creation through his death and resurrection and made possible the reconciliation of all things. Therefore, all things are included in God's redemptive grace (Col. 1:15-20). The Reformed emphases on the whole of creation belonging to God (Psalm 24:1), God's deep love and continued providence for it (John 3:16), as well as the responsibility of human beings to care for the creation (Gen 1:26, 2:15) provide a framework for paying attention to the places within which we dwell. As agents of renewal the people of God work to promote God's reign over the whole creation and are called to correct the exploitation and oppression of peoples and places. Remembering that we are called to obey God as whole persons in every area of life, we believe that education should explicitly connect the way we think with the way we live. And we need opportunities or occasions to practice the connections between our beliefs and our actions in the world. The hopeful vision of a full and vibrant creation in which relationships are brought back to reflect their created integrity offers a compelling starting point for our task as Christian educators.¹

These biblical concepts resonate with two bodies of scholarly literature—the pedagogy of place and reconciliation ecology—in which this paper is situated. The pedagogy of place argues for “a fundamental reimagining of the ethical, economic, political, and spiritual foundations upon which society is based, and this process needs to occur within the context of a deep knowledge of place.”² Educational institutions can and should play a role in this but often they do not. Instead they encourage students to be upwardly mobile, rootless, and indifferent to their place. The second body of literature in which this paper is embedded is reconciliation ecology, an emerging field defined as the science of restoring, creating and maintaining new habitats, and conserving biodiversity, *in places where people live, work, or play*.³ Our paper will briefly examine the literature on pedagogy of place and then describe how this concept has found expression within the curriculum at Calvin College through academically-based service-learning. Service-learning done within the context of pedagogy of place has led to some exciting multi-disciplinary projects focused on our local watershed. These efforts exhibit some of the fundamental principles of reconciliation ecology and offer a fresh entry point for Christians to engage creation care as they live out their faith in Jesus Christ, the first-born over all creation and redeemer of all things.

Pedagogy of Place

There is a growing body of literature that articulates the need for pedagogy that is embedded in the particularity of place. Educators are being challenged to consider the relationship between what and how we teach and the kinds of places we inhabit and leave behind for future generations. Place-based pedagogies are needed because the effective education of citizens must have some direct bearing on the well-being of the social and ecological places people actually inhabit. “The study of place...has a significance in re-educating people in the art of living well *where they are* [emphasis added].”⁴

In the last decade scholars have been calling for a transformation in education that demonstrates how events and processes close to home relate to regional, national, and global forces, leading to a new understanding of ecological stewardship and community. “Place-based education might be characterized as the pedagogy of community, the reintegration of the individual into her homeground and the restoration of the essential links between a person and her place.”⁵ Scholars have advocated for a critical pedagogy of place, where teachers and students are encouraged to reinhabit their places, that is, to pursue the kind of action that improves the social, economic, political and ecological life of places, near and far, now and in the

future.⁶ According to David Gruenewald, a critical pedagogy of place aims to do two things: first, it seeks to identify, recover and create material spaces and places that teach us how to live well in our total environments and second, it seeks to identify and change ways of thinking and being that injure and exploit other people and places.⁷

A critical pedagogy of place requires developing the ability to pay attention and to care for what is before us. When a particular place shows signs of disruption and brokenness, this indicates that people are living in that place in a care-less fashion, without being mindful of that which is close at hand. As Christian educators motivated by a biblical call to stewardship, we have a responsibility to teach and to live in such a way that all creatures can flourish and thrive. To do this, it is important to notice and consider the specific strengths and needs of the people and the places where we dwell.

Calvin Environmental Assessment Program as Pedagogy of Place

Service-learning at Calvin has offered exciting opportunities for a pedagogy of place that enhances natural science education. Historically service-learning has been underrepresented in natural science courses at institutions of higher education. The Calvin Environmental Assessment Program (CEAP) was first developed in order to address the need to increase academically based service-learning in the Natural Science Division at Calvin College, but it has grown to stimulate transformation of the institution itself, particularly its engagement with the surrounding community. CEAP involves faculty across the college (but mainly in the sciences) who design lab sessions or projects for students to collect data that contribute to an overall assessment of the campus environment and surrounding areas. CEAP, as a service-learning initiative, is an example of the pedagogy of place. It has created the opportunity for us to consider the particular issues and needs in our region and focus some of our educational resources on addressing them. In the process our learning and scholarship has been enriched.

In our particular setting at Calvin College, we have begun to pay attention to the watershed where we reside, the Plaster Creek Watershed. Watersheds are parcels of the landscape that drain to a common point. They are naturally delineated by topography, and have potential to knit together agricultural, urban, and natural areas into one integrative whole. Every business, school, church, and individual household necessarily exists within a watershed. It follows that the quality of water that flows *out* of each watershed testifies to the type of activities occurring *within* that watershed. When community members understand the watershed concept and the

particular qualities of their own watershed, such awareness provides a powerful means to connect people and institutions to the importance of taking good care of the creation.

Calvin's involvement in our local watershed began in 2004 with service-learning projects (through the Calvin Environmental Assessment Program) designed to develop basic botanical and vertebrate inventories of the stream corridor. These early CEAP efforts led Calvin College faculty to dialogue with community partners to consider what could be done in the watershed to address the degraded condition of Plaster Creek.

The Plaster Creek Watershed covers a 58 square mile area of south-central Kent County, including the southern half of Calvin's campus. Research has shown that Plaster Creek itself is subject to unnaturally high volumes of stormwater runoff caused by vast areas of impermeable surface now occupying the watershed. Additionally, the stream carries high sediment loads, contains degraded fish and aquatic insect communities, and supports *E. coli* bacterial concentration measured as high as 50 times greater than levels determined safe for even partial human body contact. The stream is also the recipient of automobile discharges, excessive nutrients, lawn and agricultural pesticides, industrial wastes and residential garbage.

To Native Peoples in West Michigan, Plaster Creek was known as 'Kee-No-Shay', which means 'Water of the Wall-eyed Pike.' After a section of stream bank held sacred by the local Indians was extensively mined for gypsum in the late 1800s, it was re-named Plaster Creek. Today, instead of being the life-affirming element of God's creation it was intended to be, Plaster Creek is largely a drain for unwanted human discharge. Portions of the creek are known for gang activities and illicit behavior. Instead of serving as a valuable resource for the communities it passes through, the creek today is mostly seen as an unsafe, dangerous place that should be avoided.

Between 2004-2008 Calvin expanded our service-learning focus on the creek to include identification and removal of invasive species, additional plant inventories of rare and endangered species, and GIS (Geographic Information System) mapping of the landscape within the watershed. Additionally, two Calvin science educators received an EPA grant to lead a summer workshop for middle and high school teachers to develop curricula focusing on ecological restoration of the watershed. During these early years we also met regularly with staff members from the Michigan Department of Environmental Quality, the West Michigan Environmental Action Council and a lead environmental engineering firm to offer feedback on the development of an approved Watershed Management Plan for Plaster Creek.

Plaster Creek Stewards: an example of reconciliation ecology

In 2008 the Michigan Department of Environmental Quality (MDEQ) requested that Calvin specifically try to engage the faith community in creation care because MDEQ had been unsuccessful in motivating this segment of the community to care about our damaged watershed. After careful planning we secured funding from the Calvin Center for Christian Scholarship to hold a 3-day summer workshop, *Creation Care on the Home Front*, for area churches in the summer of 2009. This workshop included sessions on theological foundations for creation care, watershed ecology, and practical strategies for watershed restoration and concluded with each participating church developing an 18-month action plan to care for the watershed. The congregational action plans included stream clean-ups, installations of rain gardens and rain barrels, adult education programs, and sermon series on creation care. These dialogues and early actions eventually led to the formation of the Plaster Creek Stewards, a group of faculty, community partners, local churches, and residents committed to educating and mobilizing people to take concrete remedial action on behalf of the creek in the places where they live, work, play, and worship. What has emerged is an example of reconciliation ecology in action.

In addition to continuing the summer workshops, we have begun two annual events (one each fall and spring), to gather churches, local businesses, neighborhood associations, and residents for on-going education and restoration activities. We have developed an 'implementation' arm of Plaster Creek Stewards to assist churches with projects focused on ecological improvements in the watershed and we now have a native plant nursery called Native Landscapes at Calvin College. Through Native Landscapes we provide consulting, landscape designs, native plants, and installation of native gardens and restored habitats using paid and volunteer labor. Projects done through Native Landscapes include installing butterfly gardens, rain gardens (stormwater retention swales, planted with native species), improving native riparian habitat and generating native trees from local genotypes that are donated to city parks. By encouraging the re-introduction of native species and habitats into an urban context, Native Landscapes demonstrates the compatibility of native biodiversity in a human-dominated ecosystem. The bird, butterfly and other living creatures these native plantings support are a blessing to the people who encounter them and they offer a new kind of urban aesthetic that is grounded in diversity and sustainability, all the while giving a strong, tangible affirmation of the natural

character of the watershed in which we reside. Momentum continues to build as this community-focused initiative matures.

As we have watched the Plaster Creek Stewards project blossom, residents began to tell stories of their memories of Plaster Creek. An English professor teaching an honors class focused the whole class on the theme of water and students visited Plaster Creek to learn something about its history and current condition. Their final assignment was an oral history project where students met with past and present residents to hear their recollections and tales of the role Plaster Creek has played and still plays in their lives and in the life of their community. Documenting these stories has helped engage students and community members to stretch their imaginations about what is possible in watershed care. These oral history interviews have been collected and are now part of the Community Voices archive at the Grand Rapids Public Library. We see this project as one example of a critical pedagogy of place building momentum for reconciliation ecology.

A new Research Methods class (Biology 250) was taught for the first time at Calvin in the spring of 2011. This is a required class for all Biology majors, with its major objective being to teach students how to plan and carry out scientific research. With the help of a grant from GLISTEN (Great Lakes Innovative Stewardship through Education Network) the class was designed to essentially use the Plaster Creek Watershed as its laboratory. Students spend the first half of the semester learning basic stream ecology, historical background related to Plaster Creek, current impairments of the creek, as well as basic techniques for collecting data on bacterial load, macroinvertebrate diversity and abundance, and a suite of important environmental parameters of the stream. In this way the students assemble a baseline data set that will be useful as a reference for comparison by future classes. For the second half of the semester students work on their own research projects related to the health and well-being of the creek and its supporting watershed. These projects are then presented at an end-of-semester forum to which the entire campus community and our community partners are invited. Students have also been involved in summer research projects, the most recent being an assessment of avian and fish habitat along and within the stream.

Utilizing a critical pedagogy of place in an impaired watershed, such as Plaster Creek, offers a compelling context in which to practice reconciliation ecology. Reconciliation ecology seeks ways for human beings to live within a landscape in an ecologically affirming way. It strives to re-invent human presence on the land in a way that accommodates and affirms the other

creatures with which we share the planet. In our context our teaching and research efforts have led to concrete restoration activities and offer a compelling example of how reconciliation ecology can be embodied in a particular place.

Conclusion

Faculty at colleges and universities often experience a sense of "rootlessness" due to the frequency of their moving from school to school,⁸ and students often describe their college experience as "being in a bubble," disconnected from the larger issues society faces. We want our pedagogy to counter these kinds of perceptions and instead create mutually beneficial learning experiences that make stewardship a lived reality for our faculty and students. If our educational institutions hope to have some influence on the well-being of the social and ecological places we inhabit, we must begin to cultivate a deep sense of empathy which will then lead us to ask different types of questions about what really matters. This approach will necessarily cause us to think across disciplinary boundaries and seek out cross-disciplinary collaborations. We know the most effective learning is fostered when students have opportunities for meaningful engagement that requires them to confront the complexity of an issue, both in examining theoretical assumptions about particular approaches and in making decisions about concrete action that can be taken.

In trying to forge a new relationship between humans and the places they inhabit, reconciliation ecology offers a pedagogical construct that is a natural fit for this type of learning. This is not an easy task. Reconciliation ecology "...is not simply a matter of transforming well-kept but sterile lawns into healthy habitats, but of carefully and scientifically managing natural resources in complex settings with numerous competing interests. It involves dealing with social, economic, political, and managerial issues in and among communities and in areas where political and ecological borders do not correspond."⁹ This raises many questions about how we teach our students to think about 'place' and it has significant implications for our pedagogy on the environment.

Working to improve this impaired stream and its degraded watershed so they can once again carry out their intended blessing is our attempt to actualize the coming kingdom, or in the words of Wendell Berry, to 'practice resurrection.'¹⁰ This sentiment is reflected in a Joseph Sitler essay, "Evangelism and the Care of the Earth,"

If *in piety* the church says, "The earth is the Lord's and the fullness thereof" (Psalm 24:1), and *in fact* is no different in thought and action from the general community, who will be drawn to her word and worship to "come and see" that her work or salvation has any meaning? Witness in saying is irony and bitterness if there be no witness in doing.¹¹

The overall goal of this project is to bring the good news of the gospel to the Plaster Creek Watershed and its occupants (Mark 16:15). Through this work we hope to begin the long process of reconciliation between people and their place and in so doing help to regain some of the former glory of a beloved portion of God's creation. Throughout Scripture, healthy streams give indication of God's provision for all he has made (Gen. 2:6), and they provide a hopeful vision for the coming kingdom (Ps. 46:4; Ez. 47:1-12, Rev. 22:1).

Notes

- 1 "An Expanded Statement of the Mission of Calvin College: Vision, Purpose, Commitment." Calvin College Provost's Office, 1992.
- 2 Sobel, David. *Place-Based Education: Connecting Classrooms and Communities*. (Great Barrington, MA: The Orion Society, 2005).
- 3 Scully, Malcolm. "Making Peace with Biodiversity." *Chronicle of Higher Education*, March 28, 2003.
- 4 David Orr, *Ecological Literacy: Education and the transition to a postmodern world* (Albany, NY: SUNY, 1992), 130.
- 5 Sobel, David, *Place-Based Education: Connecting Classrooms and Communities*. (Great Barrington, MA: The Orion Society, 2005).
- 6 See also C.A. Bowers, *Educating for Eco-Justice and Community* (2001); B. Braid and A. Long, *Place as Text: Approaches to Active Learning* (2000); G. Smith and D. Williams, *Ecological Education in Action: On Weaving Education, Culture, and the Environment* (1999), G. G. Heffner and C. Beversluis, *Strengthening Liberal Arts Education by Embracing Place and Particularity* (2007).
- 7 See D.A. Gruenewald, "The Best of Both Worlds: A Critical Pedagogy of Place," *Educational Researcher* 2003, 32(4).
- 8 Zencey, E. "The Rootless Professors." In W. Vitek and W. Jackson (Eds.), *Rooted in the Land: Essays on Community and Place* (pp. 15-19). (New Haven: Yale University Press, 1996.)
- 9 Scully, Malcolm. "Making Peace with Biodiversity." *Chronicle of Higher Education*, March 28, 2003.
- 10 Berry, Wendell. "Manifesto: Mad Farmer Liberation Front." *In Context*. (30) Fall/Winter 1991, 2.
- 11 Sitler, Joseph. "Evangelism and the Care of the Earth." *In Preaching in the Witnessing Community*, ed. Herman G. Steumpfle, Jr., (Philadelphia: Fortress Press, 1973.) 100-104.