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Ecofeminism, Commons, and Climate Justice

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IN MUCH RECENT WORK ON ECOLOGICAL ECONOMICS, degrowth, and the transition to more sustainable socio-economic systems, "commons" is emerging as a paradigm for future economic institutions. This goes beyond the idea of a commons as a common-property regime with the socio-political structures required to prevent open access. The vision more broadly is one of people working together, cooperatively, to build methods of production, service provision, and exchange which create value and well-being while integrating ecological care, justice, and long-term planning to the best of diverse communities' abilities. This includes institutions such as co-ops, land trusts, and non-market or beyond-market collective ways of organizing production, distribution, consumption, and waste or materials management.

Commons often function better and more sustainably than either private property and markets, or state governance, for a whole range of reasons: markets create strong incentives to over-exploit resources, exclude some users whose needs must then be met in other ways, generate pollution, ignore ecosystem services and long-term impacts, and otherwise "externalize" crucially-important costs of resource use while undercutting society's ability to address those costs and manage human development sustainably. States may be seen as inherently corrupt and inefficient, inflexible and unskilled.

Preventing the so-called "tragedy of the commons" by controlling open access through strong social institutions requires a high level of general civic consciousness, co-operation, the ability to listen and mediate differing goals, conflict resolution, flexibility and good will throughout society, especially in the context of social dynamism and diversity.

As Elinor Ostrom said in her 2009 Nobel Economics acceptance speech in 2009:

> a core goal of public policy should be to facilitate the development of institutions that bring out the best in humans. We need to ask how diverse polycentric institutions help or hinder the innovativeness, learning, adapting, trustworthiness, levels of cooperation of participants, and the achievement of more effective, equitable, and sustainable outcomes at multiple scales.

Aboriginal traditions of hospitality, sharing, potlatch (or giving away material wealth as a sign of moral and community standing), humility, and reverence for the earth, its creatures, and life systems are central to the locally appropriate commons governance processes. First Nations also had nested governance hierarchies that seem to me to correspond with what Elinor Ostrom has cited as successful ways to govern large-scale commons.

The interdisciplinary International Association for the Study of the Commons was formed in 1989, building on the Common Property Network, which was formed in 1984. IASC now has over one thousand institutional members and has sponsored twelve international conferences, with the most recent in Japan in June 2013 and in Alberta in May 2015. There are regional meetings, an online digest, a digital library and bibliographies, and discussion groups.

New books on commons appear every week, and the idea that commons governance represents something fundamentally different from "the Market" or "the State" is becoming well-known and widely accepted.

DEFINITIONS AND TYPOLOGIES OF COMMONS

So what exactly is a commons? The word is a somewhat odd collective noun, pluralized but singular—how do we understand and use this idea? There is a risk, noted already in the literature, that "commons" will become the latest glom-on term, co-opted and vague, obscuring more than it conveys. However, "commons" starts out more overtly oppositional to capitalism than other terms like "sustainability" or "development," focusing as it does on ownership and property, land, resources, and assets that are explicitly NOT privately owned (Linebaugh).

Commons take a big step towards internalizing externalities to use neoclassical terminology—and towards discourse-based valuation of ecological and social goods and services, bringing politics together with

economics, in the best alternative or heterodox traditions of political ecology and feminist ecological economics.

Ideas on common goods and their governance have a long history. The Justinian Code of CE534 divided things into "*res privatae, res publicae, res communes, res nullius, and res sacra*. *Res comunes* included earth, water, air, sky, flora and fauna and navigable waterways" (Ricoveri 37). In Europe and elsewhere, common land was long maintained for agricultural use, including hunting, foraging, and pasturing animals (Thompson). Worker and housing cooperatives, guilds, community barn-raisings, "mutual aid," and repeated examples worldwide of crises bringing out altruism, solidarity, generosity, and courage in stricken communities are indications that people's desire to act communally is ever-present (Cato 9-12; Ricoveri 63).

A recent book on commons and ecological governance says,

> The commons is a term that applies to the resources utilized, owned, or shared by multiple individuals on a group basis…. The traditional commons had to do with the management of resources on a local, not global, level. Those resources were not comprehensible if removed from the micro-societal context in which they existed…. Current-day, widespread use has diluted the formerly rigorous definition of the term "commons," … and fostered a vast expansion in the scope of those resources now considered worthy of research within a commons-related context. (Suga 4-6)

The book's editors state,

> This volume rests on the perspective that modern society is composed of three elements: a public sector, common sector and private sector…. If humanity were a society driven by the profit motive alone, it would be a society of disparities highlighted by unbearable levels of inequality. That is why society demands the existence of a public sector committed to the redistribution or balancing of income and assets through the power of taxation…. Modern societies also incorporate a common sector that is neither public nor private … that operates independently of the profit motive or the interest in upholding public authority. Structures or communities of this nature are typically composed of households, various cooperatives or non-profit organizations … (and) international

> volunteer associations…. Cooperation and/or coordination are the driving principles on which these organizations operate.. (Murota and Takeshita xxii)

International legal scholar Shawkat Alam claims:

> Collective rights are often affiliated with Indigenous people, as they are defined as rights held by groups—"a collection of persons that one would identify as the same group even under some conditions in which some or all of the individual persons in the group changed" (Xanthaki 13). It follows that collective rights are connected to a community or group, which is often of minority status. However, it has been argued that the 'recognition of collectivities and collective rights is one of the most contested in international law and politics." Indeed ... this concept of collective rights can be seen to conflict with Western ideas of individual freedom and liberty…. Collective rights have been seen to foster tolerance, and diversity of culture and knowledge. To this end, many Indigenous peoples view the recognition of their cultural rights as "of paramount importance" or "as a token of respect towards their identity and communities as well as the only way for their survival and development" (Xanthaki 13). (Alam 588)

Elinor Ostrom and Charlotte Hess, long-time commons researchers, define the term as follows:

> Commons is a general term that refers to a resource shared by a group of people. In a commons, the resource can be small and serve a tiny group (the family refrigerator), it can be community-level (sidewalks, playgrounds, libraries, and so on), or it can extend to international and global levels (deep seas, the atmosphere, the Internet, and scientific knowledge). The commons can be well founded (a community park or library); transboundary (the Danube River, migrating wildlife, the Internet); or without clear boundaries (knowledge, the ozone layer). (4-5)

In a recent book on commons, David Bollier and Burns H. Weston use the following definition: "A commons is a regime for managing common-pool resources that eschews individual property rights and

State control. It relies instead on common property arrangements that tend to be self-organized and enforced in complex, idiosyncratic ways" (347).

Italian commons activist Giovanna Ricoveri's definition is:

> The commons are goods or means of subsistence which are not commodities, and therefore they constitute a social arrangement that is the complete opposite of the one created by the market economy…. The commons are local systems that can be managed effectively only by those who have a precise and detailed knowledge of the area and who know its history, language, culture, vegetation, mountains and other physical attributes…. Thus there does not exist, nor can there exist, a general law that is valid for all systems of the commons for the very reason—contrary to what is generally believed—that they are open local systems, receptive and adaptable to the local "whims" such as climate, the different attributes of the localities in terms of natural resources, the knowledge of the inhabitants, their professionalism—all elements that cannot be defined in law. (31-36)

Elinor Ostrom too has emphasized the importance of locally-constructed governance processes, local monitoring, and enforcement of environmental quality and access to the resource. This makes monitoring more efficient, cost-effective, and accurate (Ostrom "The Future" 83).

"New commons" go beyond common-property regimes, with their socio-political structures required to prevent open access. The vision more broadly involves people working together, cooperatively, to build methods of production, service provision, and exchange which create value and well-being while integrating ecological care, justice, and long-term planning to the best of diverse communities' abilities (Hess 37). Examples include institutions such as co-ops, land trusts, and non-market or beyond-market collective ways of organizing production, distribution, consumption, and waste or materials management.

In the face of climate change, as Leigh Brownhill and Terisa Turner explain, movements in the Global South and North, largely led by women, are resisting ongoing enclosures for extraction and fossil fuel industries and, in the process, reclaiming commons.

> To the extent that the capitalist energy system is seized and

> redirected towards commoning, actors within it have reduced dangerous emissions and elaborated an alternative system premised on sustainable energy.... This "actually existing" movement of commoners is the result of the exploited taking over some of the organizations of capital and using them to (a) undermine profit and at the same time (b) negotiate and construct means for satisfying universal needs. (16)

For example, La Via Campesina's Declaration at the International Forum for Agroecology stated, "Collective rights and access to the commons are a fundamental pillar of agroecology. We share access to territories that are the home to many different peer groups, and we have sophisticated customary systems for regulating access and avoiding conflicts that we want to preserve and to strengthen" (Giacomini 98). La Via Campesina also notes, "As savers of seed and living libraries of knowledge about local biodiversity and food systems, women are often more closely connected to the commons than men" (98). Turner and Brownhill's definition of "civil commons" is "the organized provision of the essentials of life to all" (806).

For Mies and Bennholdt-Thomsen, necessary steps in this process include:

> defending and reclaiming of public space, and opposition to further privatization of common resources and spaces; … (localized) production, exchange, and consumption; … decentralization; reciprocity (instead of) mechanical mass solidarity; … policy from below, as a living process, instead of policy from above; … (and) manifold ways of realizing a community and a multiplicity of communities. ("Defending" 1021-1022).

To add some detail and groundedness to these definitions, here are some Canadian and international examples of commons. Following a bit of history to set the context, I will discuss these examples at increasing scales from local to global.

EXAMPLES OF NEW COMMONS

Co-operatives and Credit Unions

There is a long history in Canada of communities developing creative ways of securing social livelihood and building community resilience

through cooperation. Canada still has the highest per capita credit union membership in the world: 35 percent of Canadians are credit union members. According to the Canadian Co-operative Association (CCA), there are approximately nine thousand co-operatives and credit unions in Canada which provide products and services to eighteen million members in all economic sectors—agriculture, retail, financial services, housing, child care, renewable energy, etc. Co-ops have more than $370 billion in member-owned assets, employ 150,000 people, and have strong links with their local communities via volunteerism, community donations, and sponsorships. Their survival rate is higher than that of traditional businesses (62 percent are still operating after five years, compared with 35 percent for traditional businesses; after ten years the figures are 44 percent and 20 percent respectively) (see also, "Co-ops & Cooperation").

In Canada, mutual insurance companies were founded in the 1840s; dairy producer co-operatives in central and Atlantic Canada in the mid-1800s; the first known consumer co-operative in Stellarton, Nova Scotia, in 1864; a co-operative bank at Rustico, Prince Edward Island, also in 1864; and worker co-operatives connected with the Knights of Labour in the 1880s.

University of Victoria emeritus history professor Ian MacPherson, who has recently written a history of the Canadian co-operative movement, says,

> It should be noted that all these beginnings took place before there was specific, enabling co-operative legislation; before there was any general acceptance of international co-operative principles; and before regulators had any significant understanding about the nature of co-operative enterprise. In short, the early experiments were just that—experiments undertaken by groups working within flexible and developing company law to create institutions to meet their needs and likings; in some instances at least, though, they were attempting to imitate European precedents.... A significant issue in thinking particularly about beginnings, but also about the sustained ongoing strength of co-operatives, is the association with traditional co-operation (e.g., the ritual co-operation typically found in most rural areas at the time of planting and harvesting) and spontaneous co-operation (when groups, perceiving opportunities, collaborate for joint purchase of supplies or the sale of produce). Much of this kind of co-operation is informal, but it is important

> for the beginnings and the subsequent development of formal co-operative institutions. It provides context, networks, and bonds of association without which many co-operatives would not have succeeded, particularly in their formative and stabilizing phases. In that sense, it is misleading to think that an institutional approach to understanding co-operative movements is fully satisfactory. The "movement" has a life beyond institutions, often stretching deeply into cultural, community, kinship, and class relationships. The movement is not easily measured. (2-3)

More recently, MacPherson states,

> During the last two decades, there has been a steadily widening and deepening interest in the development of different kinds of co-ops. Perhaps the most common area of interest has been in co-ops that provide "slow food," food produced locally as much as possible, preferably organic, so as to lessen dependence on food produced elsewhere and brought to Canada in ways that seriously impact the environment. Across the country, too, there is a significant rise in transportation co-ops (e.g., car share co-ops, bike co-ops) and energy co-ops based on wind power or the production of biodiesel fuels. Many young people have found it useful to develop worker co-ops in the high-tech industries or to seek alternative forms of housing. Communities facing health issues because of declining support of governments and aging populations have organized different kinds of health or service co-ops. These co-ops are similar to the new co-ops found around the world, a modern rebirth. (18-19)

Local Commons in Toronto

Here are a few examples of organizations and projects in Toronto which are building local commons. I am sure that similar examples exist in most communities around the world.

Not Far From The Tree (which was started by York University Faculty of Environmental Studies graduate Laura Reinsborough in 2008) puts Toronto-grown fruit to good use by picking and sharing it locally. Fruit trees planted long ago in the city are still producing lots of apples, pears, cherries, berries, and other fruit. According to the organization's website:

> When a homeowner can't keep up with the abundant harvest produced by their tree, they let us know and we mobilize our volunteers to pick the bounty. The harvest is split three ways: a third is offered to the tree owner, a third is shared among the volunteers, and a third is delivered by bicycle to be donated to food banks, shelters, and community kitchens in the neighbourhood so that we're putting this existing source of fresh fruit to good use. It's a win-win-win situation! This simple act has profound impact. With an incredible crew of volunteers, we're making good use of healthy food, addressing climate change with hands-on community action, and building community by sharing the urban abundance.

The Yes in My Backyard program similarly links volunteers and landowners to grow vegetables in the city. On their website, they state:

> Many people would like to garden but live in apartment buildings or do not have access to yard space suitable for growing food. And yet others have access to a yard but do not have the time, interest, or the physical ability to maintain a vegetable garden. Some just like the idea of co-operating with others to create a garden together. Whatever the motivation for participating, YIMBY is working to build community and strengthen relationships between people who might not have otherwise met.

Located on eight acres of city-owned conservation floodplain land in North Toronto, the Black Creek Community Farm helps build community food security and food justice by producing healthy vegetables which are sold locally through harvest shares, farmer's markets, and volunteer programs. Its mission is "to engage, educate, and empower diverse communities through the growing and sharing of food" (see also, Slaughter; "Urban farm").

Community supported agriculture farms exist across Canada and in many other countries around the world. Food consumers purchase a share of each year's mixed vegetable crop at the beginning of the growing season, providing cash up-front for farmers and spreading the risks and rewards of agriculture. In some CSAs, consumers also help out in the fields. An Ontario website provides a directory of CSA farms across the province so that potential customers can find one in their area (Community Supported Agriculture website).

Anarres Worker Co-operative, formed in 2003, provides affordable technology services and online communications tools for the non-profit social sector, including website development, hosting, and IT support. Their website says,

> We … believe computer technology and the web should primarily be tools for community building. We are passionate about using opensource software for reasons of both utility and ethics. We believe in its affordability, flexibility, and effectiveness…. We are activists and social advocates in our own right, and we strive to bring this aspect of ourselves to our work as much as we do our technical competence and experience. (Anarres)

The Co-operative Housing Federation of Toronto represents more than 45,000 people living in more than 160 non-profit housing co-operatives. Since 1975 it has provided development assistance for new housing co-ops, as well as education and services, a bulk-buying program for its members, information for the public in eight languages, diversity education, and policy support (Coop Housing Federation).

Regional and International Commons

The 885-kilometre Bruce Trail extends from Queenston to Tobermory, Ontario. It was built and is maintained by nine regional clubs of the Bruce Trail Conservancy, which maintain a conservation corridor and public footpath along the Niagara Escarpment—a UNESCO World Biosphere Reserve—through the "kind permission" of private landowners, coordination with public lands and roadways, and the gradual purchase of land through a charitable preservation fund (Shimada). The regional clubs also organize volunteer-led nature walks, hikes, and excursions, including a series of hikes where participants meet at Toronto subway stations and go by bus to the hike site.

The Great Lakes Commons Initiative, begun in 2010, is "a cross-border grassroots effort to establish the Great Lakes as a commons and legally protected bioregion" (Great Lakes Commons). One of its projects is the participatory development of an online map of the Great Lakes that links stories and crowdsourced information, creating a shared space for dialogue and exploration (Great Lakes Commons Map). The Great Lakes Commons Initiative is a collaborative, incubated project of On the Commons, a commons movement strategy centre founded in 2001 that publishes a magazine and online newsletter, and hosts a

resource centre and network of commons animateurs.

The nonprofit Marine Conservation Institute brings together scientists, local conservation groups and activists, and governments to advocate for transboundary protection of oceans, and is working with government officials, activists, and conservation organizations to publicize and begin organizing a "Baja to Bering" ocean conservation corridor, including important offshore biological diversity conservation sites in the Pacific (Marine Conservation Institute).

GLOBAL COMMONS

The Sky Trust is a proposal to establish a governance structure to control and charge polluters for their atmospheric emissions. Proceeds would accrue to the Trust, which would use them for clean energy investments or dividends.

> Sky Trust … would encourage less pollution because it would reward the commons owners—all of us—for tough emission limits…. For decades we have been told that there are only two choices for the management of scarce resources: corporate self-seeking or the bureaucracy of the state. But there is another way. Commons management has worked for centuries and is still working today. It can be adapted to the most pressing global problems, such as climate change. A new phrase is about to enter the policy realm. To "market-based" and "command-and-control" we can now add "commons-based." (Rowe n.p.)

Creative Commons is a nonprofit organization based in Massachusetts that helps to distribute and manage shared creativity and knowledge. Their website says,

> The idea of universal access to research, education, and culture is made possible by the Internet, but our legal and social systems don't always allow that idea to be realized. Copyright was created long before the emergence of the Internet, and can make it hard to legally perform actions we take for granted on the network: copy, paste, edit source, and post to the Web. The default setting of copyright law requires all of these actions to have explicit permission, granted in advance, whether you're an artist, teacher, scientist, librarian, policymaker, or just a regular user. To achieve the vision of universal access, someone needed

> to provide a free, public, and standardized infrastructure that creates a balance between the reality of the Internet and the reality of copyright laws. That someone is Creative Commons." (Creative Commons)

These very brief examples indicate, at different scales, how commons can be assembled, managed, enjoyed, and governed by groups of people using a combination of NGO, government, and private structures, rules, and incentives. Each is different, each has its own constituency and provides distinct services or generates value for its members or "commoners." When considered broadly, these benefits extend beyond the commoners to others in society, which is partly what motivates the commons' development and existence, and also shows why commons fill important gaps in state or private/market forms of governance.

In the next section, I explore some ecofeminist insights regarding the skills and social education that are needed to help commons grow and flourish.

COMMONS FOR CLIMATE JUSTICE

An ecofeminist methodology begins close to home, for both theory and activism; looks closely at the boundary between the paid and the unpaid, and at the relation between social and material value and political power; and finds strength, resilience, and sustainability in diversity.

Ecofeminists have a great deal of experience with the challenges of finding common cause, building movements, and overcoming barriers to inclusion. At the best of times, we do this by recognizing the importance of identity, welcoming diversity, listening to everyone's viewpoints, respecting diverse knowledges, recognizing commonalities that often appear and manifest themselves in unexpected ways, and building on strengths to create a strong political force.

It is exactly the social and economic assets that are most important for subsistence that remain commons (unprivatized) in most of the world (Mies and Bennholdt-Thomsen *The Subsistence Perspective*). These include water air, forests, and pastures in many places (sources of forage and biofuels), language, and many aspects of popular culture. For land and intellectual property, commons may be contested but by no means surrendered. The many advantages of collective interdependence, especially in times of heightened risk and uncertainty due to climate change, lead people to fall back on tested and familiar

methods of mutual aid: culturally-reinforced commons governance.

Global studies confirm that women are almost always the leaders, participants, and muscle behind environmental justice movements (Kirk; Kuester; Kurtz; Merino; Perkins; Verchick; Weiss). Feminist climate groups include the Women's Environmental Network, Idle No More, MADRE, Women's Earth and Climate Action Network, Via Campesina, Women's Environment and Development Network, Our Land Our Business, System Change Not Climate Change, and Gender CC—Women for Climate Justice (Awadalia).

Women's gendered social roles, economic positions, and expertise derived from paid and unpaid work responsibilities are logical reasons for their leadership. As a result, environmental and climate justice movements often employ organizing and activist techniques developed within the feminist movement, such as consciousness raising, unmasking patriarchy, and contextual reasoning—the grounding of the movement's theorizing in women's lived experiences rather than abstractions (Weiss). Moreover, environmental and climate justice activism changes the lives of the women involved and, by extension, other women, forcing them to confront the constraints they face—time, work and other opportunities, political agency, etc.—and thereby creating the conditions and potential for more radical change (Weiss 6). This seems to describe the process which has been playing out in Canada since the late 1990s, with a huge push from Indigenous women's grounded, culturally embodied activism (Nixon).

The "green transition" includes many examples: urban food provision (community and rooftop gardens, urban fruit harvesting, local and slow food movements, community shared agriculture, collective food box programs, etc.), bike and car sharing, co-operative housing, senior and child care, tool banks, skill share and repair workshops, freecycle goods exchanges, etc.

Without a centralized strategy or plan, people worldwide are creating collaborative ways of meeting their basic needs that are far closer to commons than to impersonal, marketed private property.

GENDER CONSIDERATIONS

Echoing Silvia Federici, the major ecofeminist commons theorist, Herbert Reid and Betsy Taylor explain how patriarchy and dualisms have been central to the enclosure of commons, both historically and currently (26-27, 84-85). They find hope, however, in the global justice movements:

> Beneath the political and ideological turmoil, what must not be missed is that people from many diverse places and regions are seeking new ways to integrate nature, human sociability, and the creative arts. Out of a remarkably clear determination to reclaim to commons, they affirm the possibility of building new worlds. Body-place-commons is a radical theory of subjectivity as intersubjectivity. As such, one of its vital messages is that social hope and democratic change inhere in collective agency. (217-218).

Gender considerations permeate all the proposals and discussions related to building commons. If microcredit schemes are seen as a way to allow local communities to (re)gain control of communal assets, then women's access to microcredit becomes a key issue. When political capital is seen as the constraint on communizing resources, women's differential political and social capital, and the relationship between financial and other forms of capital, assume importance. Land ownership, where women often face extreme discrimination, is obviously a factor in establishing control of commons. The scale at which resource control is considered also has gender implications; women may have more or less political influence at different scales (Dolšak and Ostrom 337-357).

Even the themes that Dolšak and Ostrom generated through empirical research on commons governance challenges are a ripe terrain for gender analysis:

> 1.The increased interconnectedness of the biophysical world across scales and institutions across levels requires that adaptation to challenges occur at multiple levels.
> 2. The interests of resource users at these multiple levels are often in conflict.
> 3. Allocation of rights to resources (individual rights for privatization of a resource or community rights in the process of devolution) is a political process.
> 4. Access to this political process is limited by the structure of the macro institutions and also by the human, political, and social capital available to each group of actors.
> 5. More open political systems and more interconnected economies provide a larger set of adaptation strategies.
> 6. Adopted policy solutions are incremental and not linear. (338)

As ecofeminists well know, discriminatory institutions do not just disappear, and those interested in (re)building commons must critically engage with these institutions as part of the process of politically driven socio-economic change.

BUILDING COMMONS: EDUCATION, SKILLS, POLICIES

Elinor Ostrom's research has demonstrated that successful commons governance institutions share several characteristics:

- they face uncertain and complex environments;
- the local population is stable over long periods of time; people care about their reputations and expect their descendants to inherit the land;
- norms have evolved which allow individuals to live in close interdependence with each other and the community is not severely divided;
- the resource systems and institutions have persisted over time;
- they are robust and sustainable.

Ostrom developed a set of "design principles" that help to account for the success of those commons governance institutions that have proven to work well:

- clearly defined boundaries for the commons
- congruence between appropriation and provision rules and local conditions (local appropriateness)
- collective-choice arrangements (individuals can participate in modifying the rules)
- monitoring of the rules by members takes place
- there are graduated sanctions for violations of rules
- rapid, low-cost conflict-resolution mechanisms exist

rights to organize are recognized, at least minimally (outside

- authorities do not challenge the rights of members to devise their own institutions);

and, for larger systems:

- there are multiple layers of nested enterprises which perform governance functions. (Ostrom *Governing* 89-90; see also Łapniewska 90).

Tiered and nested organizational layers exist in many co-operative

federations and credit unions, as Jack Quarter et. al. note in their study of the social economy in Canada:

> The tiering arrangement represents a type of functional integration in which co-operatives with common needs co-operate with each other through an apex organization that helps them with their service provision. Often apex organizations serve as the voice of the sector (its members) to government, seeking to represent their needs. Sometimes they provide practical services to member organizations such as assistance with loans, loan guarantees, and information … (or as) brokers for national and international markets … (and) business associations. (67)

This shows how commons management is qualitatively different from both state/government organization and market rationality.

What are the attributes and skills required in the general populace for commons to be managed well, and for this paradigm and framework to spread? It should be obvious by now that I am not talking about a wholesale, sudden substitution of commons-type goods and service provision for everything done by the market; rather I see this as an inexorable progression where commons of various kinds gradually expand in the interstices and to meet the many gaps in the global and local economy, whenever (and exactly because) commons meet some needs better than any other provisioning system. It's possible to envision a nearly-infinite overlapping set of communications and governance structures covering all kinds of commons and groups of people, from watersheds, airsheds, agricultural areas, and political jurisdictions to epistemic commons, information commons, housing and shelter networks, community-shared agriculture and food box groups, arts and culture groups of all kinds, and other networks that create social, political, ecological, and economic communities. This addresses social and psychological needs for belonging which may be as important as material needs in keeping a socio-economy running well, reducing material throughput while maintaining health and well-being.

Ken Conca, in writing on how to nurture improved institutions for global water governance, states,

> Scholarship on the effective sustained management of common-property resources has shown the importance of institutions as second-order public goods that help to provide the underprovided

> good of social co-operation. One obvious area in which such second-order public goods would facilitate the nurturing of institutions is resolution of environmental disputes.... The dispute-resolution approach could also be linked to growing interest in the idea of environmental peacemaking ... processes such as cooperative knowledge ventures and the emergence of regional-scale identities might help to transform situations of conflict and insecurity using environmental relationships as catalysts, with non-state channels as important venues. (384-5)

Bollier and Weston speak of innovations in law and policy being needed in three areas to foster commons governance: general internal governance principles and policies for commons, building on the work of Elinor Ostrom and the Indiana University Workshop in Political Theory and Policy Analysis where she carried out much of her research; macro-principles and policies that the state/market can embrace to develop commons and "peer governance"; and catalytic legal strategies to validate, protect, and support commons (Bollier and Weston 349). As examples, they cite conceptualizing commons as equal and legitimate partners with the state and the private sector—a triarchy of state/market/commons for governance options; adapting private contract and property law to protect commons, as in the GPL or General Property License which copyright owners can attach to software to assure that the code and any future modifications to it will be forever accessible to anyone to use, and the Global Innovation Commons, a huge international database of lapsed patents; "stakeholder trusts" to manage and lease ecological resources on behalf of common groups and distribute revenues to them, such as the Alaska Permanent Fund or a Sky Trust; re-localization and "transition towns" movements; Community Supported Agriculture and Slow Food movements assisted by government policies; expansion of the public trust doctrine of environmental law to include atmosphere and water; wikis and crowd-sourced platforms to include citizen experts in policymaking and enforcement, participatory environmental monitoring of water quality and biodiversity, etc. (Bollier and Weston 351).

Computer technologies, online organizing, and communications now allow people to create participatory communities and commons of many new kinds. According to legal scholar Beth S. Noveck, these forms of collective action are potentially vibrant and efficient, and should be recognized and encouraged in law by allowing legitimate, decentralized self-governance.

Carol Rose, in a classic 1986 paper, showed that the legal status of commons is well-represented and understood in modern Western legal traditions.

Thus, recognition of the importance of commons has long existed in Western legal traditions as well as those that have resisted the colonial imposition of Western governance institutions, where commons, often protected through women's work and leadership, have safeguarded many communities' resilience in the face of capitalism and colonialism.

CONCLUSION

Scholarship and activism on commons of all kinds is growing exponentially. There are many ways that all of us can contribute, participate, and share our own skills and knowledge.

Ecofeminist and feminist political ecology theory and practice are consistent with building commons in many ways. Much of what communities are already doing in the face of climate change can be seen as advancing the development of the participatory, locally appropriate governance institutions that are working to protect commons. Here are a few examples:

- We can spread the knowledge of commons, the work of Ostrom and others, the importance of this "third way," not market, not state, but drawing from each—in our classes, consulting, government, and activist work.
- We can build the skills needed for sustainable commons governance at the local level—respectful communication, dispute resolution, shared provisioning, transmission of ecological knowledge and care—seeking inspiration in ecofeminist and Indigenous traditions
- We can conduct research analyzing perverse subsidies and barriers to commons governance models to provide policy advice, and work for the broader acceptance of commons as legitimate and valuable
- We can foster and demonstrate the use of discourse-based collective valuation processes to build local democracy and co-responsibility
- We can assist new co-ops and commons initiatives to support co-operative growth in all sectors.

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