# Ethan C Roland of AppleSeed Permaculture in the USA describes a way of designing a financial system that looks more like an ecosystem

inancial Permaculture goes beyond the traditional approach to economics and asks the question, "What would it look like if we redesigned the global financial system using permaculture principles?" and "What if our financial system looked more like an ecosystem?"

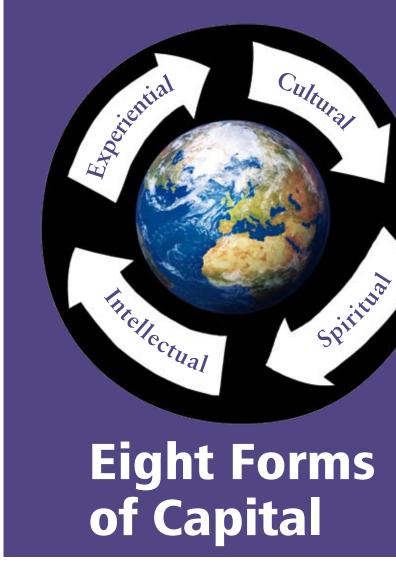
#### **EIGHT FORMS OF CAPITAL**

The Oxford American Dictionary states that capital is, "wealth in the form of money or other assets" and a "valuable resource of a particular kind". What are these 'other assets'? I've never seen a whole map of all the different types of 'valuable resources'. In *Permaculture: A Designers' Manual*, Bill Mollison offers and expands on a categorization of assets based on their potential: Degenerative, Generative, Procreative, Informational, Conservative.¹ These always seem like a good way to think about things, but I don't use them in any tangible way.

I wanted something that would be more helpful for understanding the complex transactions and exchanges swirling around me as a human being and us as a global community. As I tried to enumerate all of the different 'valuable resources' which an individual or entity could gather or exchange in a community, the 'Eight Forms of Capital' emerged (*Figure 1*).

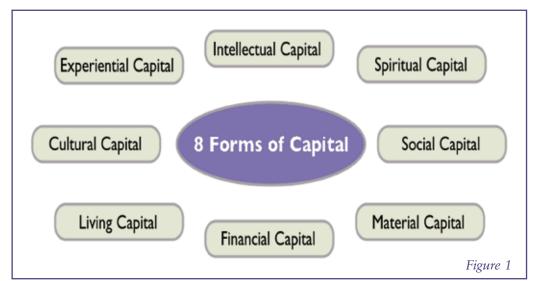
## SOCIAL CAPITAL

Influence and connections are social capital. A person or entity who has 'good social capital' can ask favors, influence decisions and communicate efficiently. Social capital is of primary importance in politics, business and community organizing. Jason Eaton of Social Thread LLC explained to me that capital can be in the form of equity or debt. In social capital, a person can 'owe' favors or decision-making influence to another person or entity.



# MATERIAL CAPITAL

Non-living physical objects form material capital. Raw and processed resources like stone, metal, timber, and fossil fuels are 'complexed' with each other to create more sophisticated materials or structures. Modern buildings, bridges, and other pieces of infrastructure along with tools, computers and other technologies are complexed forms of material capital.



#### **FINANCIAL CAPITAL**

We are most familiar with financial capital: money, currencies, securities and other instruments of the global financial system. The current global society focuses enormous amounts of attention on financial capital. It is our primary tool for exchanging goods and services with other humans. It can be a powerful tool for oppression, or (potentially) liberation.

# LIVING CAPITAL

A precious metal dealer who attended both Financial Permaculture courses advises, "Rather than US



dollars, measure your wealth in ounces [of gold and silver]!" Recognizing that 'precious' metals are just another form of financial capital, Catherine Austin Fitts recommends that we diversify and, "Measure your wealth in ounces, acres, and hooves". Living capital is made up of the animals, plants, water and soil of our land – the true basis for life on our planet.

Permaculture design teaches us the principles and practices for the rapid creation of living capital. Permaculture encourages us to share the abundance of living capital rather than the intangible 'wealth' of financial capital.

(Note: 'Natural Capital' could be a synonym for living capital, but the 1999 book, *Natural Capitalism*, by Hawken et al. focuses more on a slightly updated system of capitalism than on the true wealth of living systems. The current Slow Money movement is also making strides in a similar direction, seeking to transfer financial capital into the living forms of soil, animals, and agriculture.)

## **INTELLECTUAL CAPITAL**

Intellectual capital is best described as a 'knowledge' asset. The majority of the current global education system is focused on imparting intellectual capital – whether or not it is the most useful form of capital for creating resilient and thriving communities. Having intellectual capital is touted as the surest way to 'be successful'. Science and research can focus

on obtaining intellectual capital or 'truth', though it is often motivated by the desire for financial or social capital. For example, 'going to university' is primarily an exchange of financial capital for intellectual capital. It is supposed to prepare people for the rest of their lives in the world.

# **EXPERIENTIAL (OR HUMAN) CAPITAL**

We accumulate experiential capital through actually organizing a project in our community, or building a strawbale house, or completing a permaculture design. The most effective way to learn anything comes through a blended gathering of intellectual and experiential capital. My personal experience getting a Master's degree at Gaia University showed me that experiential learning is essential for my effective functioning in the world: I was able to do projects instead of take classes, and I'm now collaboratively organizing the local permaculture guild and co-running a successful permaculture design firm.<sup>2</sup>

I can see that human capital is a combination of social, intellectual and experiential capital – all facets of a person that can be gathered and carried in essentially limitless amounts. But there's one more form of capital that a person can gather and carry inside themselves...

#### SPIRITUAL CAPITAL

Spiritual capital contains aspects of intellectual and experiential capital, but is deeper, more personal and less quantifiable. Most of the world's religions include a concept of 'the great chain of being', a holarchic understanding of existence where spiritual attainment (in this context, the accumulation of spiritual capital) leads to different levels of being.<sup>3</sup>

In spiritual capital, there again enters the concept that capital can be in the form of equity (gathering positive spiritual experience/understanding/attainment) OR in the form of debt. In some Mayan cultures (like the Tzutujil of Lago Atitlan), a basic understanding of existence is that humans owe a 'spiritual debt' to the magnificent beauty and complexity of existence. According to this worldview, the goal of one's life in the world is to create works of unspeakable beauty and gratitude, thereby repaying the spiritual debt to existence.<sup>4</sup> The Tzutujil also recognize that single human beings can never really be effective at gathering and flowing capital if they are separated from their community.

## **CULTURAL CAPITAL**

All the other forms of capital may be held and owed by individuals, but cultural capital can only be gathered by a community of people. Cultural capital describes the shared internal and external processes of a community – the works of art and theater, the songs that every child learns, the ability to come together in celebration of the harvest or for a religious holiday. Cultural capital cannot be gathered by individuals alone. It could be viewed as an emergent property of the complex system of inter-capital exchanges that takes place in a village, a city, a bioregion, or nation (*Figure2 overleaf*).

#### **PROPERTIES OF THE SYSTEM**

These eight forms of capital help us map our understanding of the world. The map clarifies that money is not the only form of capital flowing around and through us. This map expands the concepts of wealth (and poverty) to include the 'valuable resources' of personal connections, natural resources, land, knowledge, experience, and more. It provides a language for permaculture designers to communicate the value of healthy soil and healthy communities to people immersed in the current mindset of global capitalism, where financial capital is the only reality.

What are the mediums of exchange used for each form of capital?

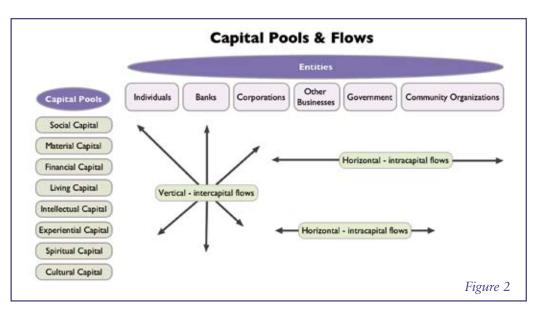
#### **EIGHT FORMS OF CURRENCY**

Although most definitions of currency focus on financial capital, the Oxford American Dictionary and the Princeton Wordnet<sup>5</sup> both include the definition of "the fact or quality of being generally

accepted or in use". For this map, I define a currency as the generally accepted (or in use) medium of exchange between pools of capital. In many cases, the currency is the capital itself – for example, items of 'material capital' like copper or steel, can be the medium of exchange. Currencies can also be 'complexed' into more interconnected and functional forms and still used as a medium of exchange (*Figure 3*).

#### **PRACTICAL APPLICATIONS**

Earlier this year, as my partner and I designed a four-weekend series of Forest Garden courses, we were having a lot of trouble with the budget. The costs of renting space and paying teachers combined with our desire to keep fees affordable for the local community made the numbers look unfeasible. No matter how we changed things around, we couldn't figure out how to make a reasonable financial return. Then we realized that our thinking was too narrow – we were only looking at financial capital! When we considered the experiential capital we'd gain by running a course, the social capital gathered by planting forest gardens at a new education center, and the living capital of hundreds of useful plants going into the ground... it became clear that financial remuneration was only one facet of the system. Nonetheless, we still needed to balance our inflow and



outflow of this one form of capital.

The eight forms of capital provide a clear path towards a small point of great leverage: Eco-social Investing. We can encourage individuals, businesses, organizations, and governments to mimic nature's practices of investing: locally, intimately, diversely, and primarily in living capital. The Financial Permaculture community, Gaia University, and a host of connected businesses and organizations are investing diverse baskets of capital, offering events like the Carbon Farming Course in Tennessee and the thriving eco-social chocolate business, BooyaCacao.

I've outlined a set of principles for Eco-Social and Ecosystem Investing, which you can find on my blog.

One of the most useful applications of this map is for growing and shifting our own understanding of the world and the transactions we engage in. When I volunteer time working on my friend's organic permaculture farm, more than just 'free labor' is taking place:

- I'm gaining experiential and intellectual capital about the farm's soil, crops, and management.
- We're supporting the growth of healthy living capital in the soil.
- Eight Forms of Currency Capital Complexing to... Currency Social Capital Connections influence, relationships Material Capital Materials; "natural" resources tools, buildings, infrastructure Financial Capital Money financial instruments & securities Living Capital Carbon, Nitrogen, Water soil, living organisms, land, ecosystem services Intellectual Capital Ideas, Knowledge words, images, "intellectual property" Experiential Capital Action embodied experience, wisdom Spiritual Capital Prayer, Intention; Faith, Karma spiritual attainment Cultural Capital Song, Story, Ritual community Figure 3
- My friend gets help producing products to exchange for financial capital (her right livelihood).
- We both build social capital through positive interaction and connection with each other.

This amount of clarity can lead to a whole new level of transparency in our work as eco-socialcultural-economic designers. It can guide us towards an everdeepening practice of the third ethic of permaculture.



#### THE THIRD ETHIC

Although Bill Mollison originally stated the third ethic of permaculture as "Setting limits to population and consumption", 6 many of us (especially in the more recent waves of permaculture) have been taught different forms of the third ethic. Some learn 'Fair Share', a toned-down and friendlier version of 'Limits'. Others learn 'Resource Share', which directs attention away from scarcity and towards reinvestment of abundance. And more recently I've seen Starhawk refer to the third ethic as 'Future Care', which synthesizes the call for Fair Share and Resource Share into a focus on creating thriving inheritances for future generations. The eight forms of capital can and should be considered in terms of each version of the third ethic.

#### **FAIR SHARE**

When people, and the businesses, organizations and governments, understand the eight forms of capital, they may find that financial capital is not the whole system. This can lead to decreased consumption of non-essential goods and services that fuel our infinite-growth-based financial system.

A truly just society requires fair and equitable distribution of *all* forms of capital. While financial capital is important, non-financial capitals offer pathways to empowerment for the oppressed communities of our planet. In communities I've visited (Kazakhstan, Chile, and Latin America), the abundance of cultural capital often outweighs the financial capital, regenerating into a wealth of experiential and living capital that I've never seen in my north-eastern USA home. Any of us in the over-developed world can follow this modeling, working to end oppression caused by our current financial-capital-centric systems.

# **RESOURCE SHARE**

We can use the eight forms of capital to include resource sharing in our projects. AppleSeed Permaculture has set a new Carbon Policy, whereby 5% of our revenues will be dedicated to offsetting our carbon footprint through carbon-farming projects (living capital). The *Permaculture Activist*'s tree tax functions in much the same way, transforming financial capital into living capital for the good of the planet.

AppleSeed Permaculture is also inspired by our friends Shabazz and Josephine of Greenway Environmental Services, who explicitly donate 10% of every work week back to the community through education and consulting. They share their intellectual and experiential capital with urban youth groups and rural permaculturists alike, generating social capital for themselves at the same time.

#### **FUTURE CARE**

To care for future generations, we need to move beyond finance into living and cultural capital. Of all eight forms, these two have the greatest potential for positive systemic change. Mollison writes, "We should develop or create wealth just as we develop landscapes, by conserving energy and natural resources [and] by developing procreative assets (proliferating forests, prairies, and life systems)". Only through the songs, stories, and shared ethics of cultural capital can a focus on living capital can be sustained for the seventh generation to come.

Some pieces are missing from the map: where does 'labor' fit into the picture? What form of capital is 'time'? There may be some dangerous implications: this map could commodify

ecosystem services, spirituality, and culture. To care for the future, we must think more holistically about our current capital system. So let this map be a first draft

Ethan C Roland is a permaculture designer, teacher, and ecosocial entrepreneur based in the Hudson river valley of New York, USA. He studies and practises regenerative design in all corners of the world, from the wild apple forests of Kazakhstan to the tropical monsoon ecosystems of Thailand. Ethan builds resilience for local and global communities through the design firm AppleSeed Permaculture, organizes the Carbon Farming Course, and is redesigning the field of higher education through Gaia Northeast – The University for World Changer. He holds an M.S. in Eco-Social Design from Gaia University, and blogs his research on financial permaculture, ecosystem investing, and carbon farming at www.appleseedpermaculture.com/blog

## **GRATITUDE & RESOURCES**

- Regenerative Designs Blog www.regenerativedesigns.wordpress.com
- Financial Permaculture Course www.financialpermaculture.com
- Financial Permaculture Blog www.financialpermaculture.org
- Solari, Inc. www.solari.com
- Social Thread LLC www.socialthread.com
- ▶ Slow Money www.slowmoneyalliance.org
- BooyaCacao www.booyacacao.com
- ▶ AppleSeed Permaculture www.appleseedpermaculture.com/blog

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- Gaia University Master's Degree Portfolio; E. Roland; 2008. http://gel.gaiauniversity.org
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- <sup>4</sup> Saving the Indigenous Soul: Derrick Jensen Interviews Martín Prechtel. M. Prechtel; Sun Magazine, December 2009.
- Wordnet: A Lexical Database for English; accessed 5/31/09; http://wordnet.princeton.edu/
- <sup>6</sup> Permaculture: A Designers' Manual, p.2; Bill Mollison; Tagari Publications, Tasmania, Australia, 1988.
- 7 Ibid; Permaculture: A Designers' Manual, p.534; Bill Mollison; Tagari Publications, Tasmania, Australia, 1988.