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Nurturing: An Alternative Learning Cosmology

Cole D. Genge

In the Andean world¹ of South America, where “everything is alive and everything speaks, ...where all are relatives, [and] all are important and necessary, [...] Nature speaks to the farmer, just as the farmer speaks to nature.”² From this symbiotic relationship — that itself grew from the sweat and soil of the Andes — wisdom is understood as nurturing and allowing oneself to be nurtured. In this sense, nurturing “connotes a caring relationship that lets the nurtured one come forth freely,” where the “very act of nurturing, of caring for, nurtures oneself” and “allows for the nurturer to participate in the unfolding and growth” process.³ This nurturing process is one of constant interaction, of continual, creative and diversified trial and error. It is a lifelong endeavor that is sharpened by doing, by hearing, by seeing, by caring and by being supportive of others in their midst. In this way, a larger social network is shaped by collective altruistic behavior.

Studies in recent years in various fields — from psychology to quantum physics, from biology to education — allude to what native peoples around the world have known for centuries: that the greatest potential for learning occurs, when nurturing social support networks are functional and well-established. The traditional elements of the Andean world could very well be understood as learning societies, for they have social support networks for meaningful learning both at individual and societal levels.

In the pages that follow, I will look at some of the foundational characteristics of learning within an Andean cosmology,⁴ one that is fundamentally based on the concept of nurturing. The basis for this article stems from my interactions with personnel from Cai Pacha/PRATEC (an indigenously initiated non-governmental organization that advocates a return to the roots of pre-conquest Andean values, beliefs and lifestyle, which centers around agriculture and a deep connection to nature). In the first section, I will focus on some of the attributes of nurturing as they relate to learning. In the second section, I will examine the following three areas: a) the nature of Andean wisdom; b) the experimental nature of traditional knowledge; c) learning from childhood. In the final section, I will look at challenges nurturing faces as an approach to learning.

Attributes of Andean Nurturing

The concept of learning as a nurturing process is at the very root of Andean cosmology. As such, far from being theoretical, it is a strongly ‘lived’ experience. The senses (sight, smell, and taste) are used as a window for direct dialogue with the world, and the nurturing of Nature is alive and personified. That is, Nature converses with those who are willing to converse with it. It is a wordless dialogue, one that is reflected in the prediction of the coming of rains, by the color of the sky, or by the taste of the winds.

In this sense, everyone and everything ‘knows,’ and everyone and everything has culture (as understood by the Latin root for *culture*, i.e. *cultus*, “to cultivate or to nurture”). In the Andean world, *cultivate* and *nurture* are used interchangeably. The capacity to nurture is inseparably linked to the capacity of letting oneself be nurtured. This allows the nurturing process to flow through oneself. In this way, nurturing is embedded in the self, but it is also porous and open to “other knowledges” in the world. Thus, the emphasis is placed on those who establish a nurturing relationship. It is therefore not merely an individual act; it embodies the whole – both human and non-human.

But for nurturing to occur, establishing a simple relationship is not sufficient. Rather, nurturing involves a communal or collective participation in building a relationship of empathy. It is not a conscious act of agreeing upon

external pressures, but rather a sensitive and caring one that opens the spaces and breaks down the boundaries, allowing for wisdom to flow in a symbiotic relationship of life and knowledge.

Nurturing is the caring relationship that forms between members of an in-group. In the Andes, this group is the *ayllu*. *Ayllu* is a loaded term; it has multiple meanings for the *campesinos* (peasant farmers generally of indigenous origin). One of its most common meanings “refers to the relations of kinship and decent which exists among a human group related consanguineously [blood kin] and living in a particular territory.”⁵ *Ayllu* is thus commonly associated with the social unit of several families, both related and non-related, but goes beyond that to encompass the relationship between members of a community and their natural/mythical environment (the sun, moon, stars, mountains, lakes, plants and animals, among others). There are many more interpretations of this concept; however, for the purposes of this discussion, these two are sufficient.

In the Andean cosmology, knowledge is not at the margins of a nurturing process, as much as it is nurturing itself. The space where knowledge is expressed is the *chacra*, the center of the Andean universe. *Chacra* is a space of “growing plants, of raising animals and making a cultivated field.”⁶ To make *chacra*, “is to converse with nature. [...] The human *chacra* is not only made [or nurtured] by humans; [but] all, in one way or another, participate in the creation/nurturance of the human *chacra*.”⁷ I was told by a Peruvian intellectual, of *campesino* origins, that the *chacra* is our place of work, a space devoted to what we want, where we feel capable to nurture and give with passion, where one can place all that is worthy of oneself, and where one feels s/he is contributing to the betterment of others. It is the place of nurturing, where one is raised as a child, where sustenance comes from, and where the natural and the divine are manifested. In this way, knowledge is agro-centric.⁸ Moreover, because knowledge is rooted in the *ayllu* and the *chacra*, it is in a state of continual and creative flux.⁹ Innovation passes through trial periods and is re-created in accordance with the rhythms of nature. In a sense, *campesinos* and nature are continually learning from each other.

Reflections on Andean Learning

a) The Nature of Andean Wisdom

Knowledge is gained from interacting with nature over time and selecting what is most useful and appropriate. The fruits of this interaction are not merely a sum of ‘knowledge units’ (where a learned skill, such as the capacity to identify nutrient poor soils, is understood as equivalent to a knowledge unit). Rather, the web-like connections formed between ‘knowledge units,’ as a result of daily practice over time, result in wisdom. Indeed, wisdom is shared in this Andean learning society, to the extent that knowledge and wisdom become one and the same. For example, the nature of knowledge and wisdom among the Andean *campesinos* has many dimensions, including linguistics, zoology, agriculture and craftsmanship. But all of these are borne of the strong linkages formed between humans and nature.

b) The Experiential Nature of Traditional Knowledge

With its dense and rich ecology, the central Andean range has been characterized as one of the great wonders of ecological diversity in the world. This wealth of diversity emerged out of continual exchanges among the climatic niches that formed in relative proximity to each other, as a result of wide variations in elevations. For example, in modern day Peru and Bolivia, one finds that over 2000 varieties of potatoes (*Solanum spp.*) flourish under all kinds of climatic and soil conditions.¹⁰

Human intervention has played a key role in the multiplicity of species found in these countries. The conditions inherent to the Andean landscape fostered an experimental and inquisitive nature among early inhabitants, and successful cultivation choices were kept and socialized into the community from generation to generation through oral history and practice.¹¹ Andean experimentalism stands in sharp contrast to experimentalism in modern post-industrial societies. The former was small-scale, affected small eco-regions, and did not adopt a new practice until after it had been tested for a long time — sometimes even over one or two generations. In contrast, modern-day experimentalism is short-term, implemented on a large scale, affects vast geographical regions and large numbers of people, and is assumed to be appropriate for all regions (for example, DDT or high-input agriculture).

The virtue of *campesino* wisdom is not based solely on minute and exhaustive observation of the environment. It also involves an experimental and practical application of the observations. Seed selection is one example of this

fluid conversation between the *campesino* and the land. The *campesino* is able to know what maize seeds are most adapted or most productive on specific soil types. This kind of skill is born of years of observation and practice.

c) *Learning from Childhood*

Learning in an Andean nurturing society is a lifelong process that begins at a tender age. Children in the Andes are not viewed as a pest or a burden to family and society; on the contrary, they are an inherent part of the survival — economic and otherwise — of the community. The Andean child learns by continually observing and doing and by asking the council of older people. S/he participates in the activities of daily life. There is no technical or abstract training; nurturing is purely based on the senses, while being in tune with nature, and is often manifested in play. Octavio Meza, a six-year-old boy of a *campesino* community in the highlands of Peru, relates the following learning experience:

I like to do *chacra*. When my father lets me at home, I do my *chacrita*.¹² On the side of my garden, I sow potato, I put maize, *oca* [Andean tuber], *manzanilla* [sweet-smelling herb], and other things too. I like very much to do *chacra*. First I grab my *queshi* [traditional planting instrument] and I go with my *queshi* to my little garden. On my way, like my father, I start chewing *coca*,¹³ but I don't chew *coca* I chew *cancha* [fragrant Andean brush], that's what I chew. After [chewing] like my father, I start doing the sign of the cross in front of my *chacra*, and I ask at that moment that he [God] help me make my *chacrita*, so that I myself can have my own crop that I can eat. Then I begin to turn the land over little by little. When I finish turning the land over, I go steal potatoes from my mother to sow in my *chacra*. Then later I begin to make furrows with my *queshi*. Then after finishing I begin sowing like my mother. When my mother sows, she steps on the potato, so then I do the same. And at midday I eat my lunch, my *micarpa* [traditional food] that my mother left for me. As I finish sowing, then I begin making the fence [around the *chacra*] like my father does. So that's how I do it and I'm learning how to sow alone for when I grow up.¹⁴

Challenges to Nurturing as a Learning Approach

'Nurturing,' as an approach to learning, is a natural way of learning. It is a seed germinated by exchanges between humans and nature over time. It is contextual, area-specific, culturally appropriate, and probably, most importantly, it is meaningful to the learner. Nurturing as a learning approach is possible and desirable within an Andean-centered view of the world, one that revolves around the *chacra*, in which the *ayllu* are the key stakeholders. This vision has been enriched and strengthened, both in ideology and in practice, over the centuries. Yet a nurturing that is solely grounded in an agrarian sense of the world is faced with many challenges in today's world, particularly the threats of modern development, agriculture, education, and the market economy.

The Damage of Development and Education

Development is a human construct in the same way 'knowledge' is, but it is a construct foreign to the Andes — at least as it has been implemented. Development has meant that knowledge originates outside one's community, that this outside knowledge (such as the use of herbicides) can be taught to a community, and that, once taught, the application of this knowledge can be exchanged for something desirable to communities (often money-related). Without such Development, it is expected that communities will suffer some consequences. Inherent to this notion of Development are images of subjectification, whereby the Developer inherently feels superior to the subject and is 'moved' to improve the subject's conditions of 'deprivation'.

Since the late 1950s, with the start of the Green Revolution in the Andean region, huge investments have been made (and continue to be made) in the form of equipment and infrastructure to further 'human development' in the Andes. They are based on the assumption that knowledge in the Andean region is lacking and that such Development projects will strengthen, instruct and provide assistance to its 'needy' and 'poor' people. As a result, none of the Development interventions were/are born of the area-specific realities and knowledges of Andean communities. Instead, they were/are generated far away, in foreign contexts with their own set of assumptions about reality. "These trainings are impositions of one culture over another; on the same token, it is worth noting that **what is not born will not grow**."¹⁵ Therefore, it is not surprising that, for the most part, Development projects have come and gone with few lasting successes.

For example, the Green Revolution was introduced by western governments, via the Bolivian and Peruvian governments. It was originally a sociopolitical move to counter socialist tendencies that were emerging among the farming masses (whose crop sizes were shrinking due to unequal land distribution).¹⁶ However, the result of the Green Revolution — i.e., greater mechanization, synthetically-based pesticides, fertilizers and ‘improved’ seed — is a leeching away of traditional *campesino* wisdom.

In the same vein, after the agrarian revolution of 1952, the *campesinos* were given an education that devalued and demeaned their own Andean culture and traditions and simultaneously served more as western-culture indoctrination camps than as institutions of learning. In fact, the schooling of indigenous people has been one of the most important avenues for breaking down native cultural heritage and pride and inserting in its place a ‘western-friendly’ outlook to the world. Such an outlook is what teaches schooled *campesinos* to accept petrochemicals if they remain in the rural areas. However, it is more likely that ‘educated’ *campesinos* will end up in cities, often at the edge of the market economy, where they are continually bombarded by a media and surroundings that say, “the ‘real life’ is in the city” — just beyond their reach. This ‘educated’ view lies in stark contrast to their roots in the Andean countryside. Even more paradoxically, the nurturing societies of yesteryear (that were once banned from learning how to read and write for government fear of ‘peasant uprisings’) have today become part of schooling societies. All *campesino* children are required to go to primary school by law, though it is clear that such education has little (if anything) to do with learning and much more to do with social containment.

Engulfed by the Market Economy

Ironically, Andean cultures survived the Spanish conquest of the 16th century, and even the exploitative period of the republics in the 19th century, in part, because of indigenous people’s condition of quasi-slavery. As long as the huge estates and mining companies existed, community life (the *ayllu*) was kept vibrant and strong for its own mutual protection and survival. Yet, with limited land distribution after 1952, the trend was set for breaking up the once-shared responsibilities of working the ‘boss’ land. Thus, even more ironically, as slavery was being dismantled under the great land and mining barons, the very core of the *campesinos*’ social support system — the *ayllu* — was slowly eroding away. This erosion over time increased in part, because the *campesinos* became increasingly immersed in the market economy. Such immersion was required of them first in order to purchase land deeds, and then to keep their land by paying taxes, and later through an education system that promoted western values at the cost of their own.

The assimilation of *campesinos* into a market economy has made them vulnerable to national and international issues. The global economic downturns and oil crisis of the 1970s, the external debt servicing of the 1980s, and the implementation of orthodox neoliberal policies in the 1990s, have together contributed to increased poverty all across Latin America.¹⁷ The Andean people were among the first to bear the brunt of economic recession in the form of massive layoffs; miners, the single largest formal labor force, almost exclusively made up by Quechua and Aymara people, were especially affected. Stifling trade, in addition to a series of bad crop years in the early 1980s, compounded existing issues for *campesinos* and city folk alike.

Among the effects was a growing trend of country-city migration. Demographic trends for Latin America indicate that roughly 77% of the population now live in cities and of these, half are poor.¹⁸ In 1960, 39% of the total Bolivian population lived in urban areas. By 2015, this figure has been estimated to grow to nearly 74%, with a staggering rate of migration at nearly 4% annually for the 1990s.¹⁹ Such figures point to the fact that the rural areas are rapidly losing their traditional inhabitants as they swarm to the cities, thus marking a further disintegration of the *ayllu*.

Though the trend towards urban migration has been taking shape over decades due to a number of factors (Green Revolution, education, land reform, etc.), access to radio and increasing access to TV in the rural areas has also had a tremendous influence on the choices people make. In effect, in the last two decades, *campesinos* are demonstrating a heightened preference for a market worldview. By and large, the ‘choices’ they have made have tended to transform them into consumers, willing to risk their heritage for economic prosperity. Demographic and (arguably) attitudinal changes among growing numbers of *campesinos* stand counter to their sense of living in harmony with nature, and to their notion of nurturing and allowing oneself to be nurtured.

The exponential spread of certain economic and political trends (unfettered neo-liberalism and unchecked global market capitalism) in the last quarter of the 20th century have undermined social cohesiveness and the welfare of millions of individuals, who find themselves disenfranchised from a world intent on making a profit. As a consequence, social support networks grounded on nurturing and caring have diminished significantly in scope and spread. Yet, the potential for social cohesion, grounded in moral and spiritual principles, lay the foundations for nurturing societies, which are important stepping stone towards learning societies. Putting such principles and practices (learning by observation and practice, dialogue, respect and empathy) at the forefront of learning societies would lead to greater appreciation, nurturing and caring for one another, as well as to a transformation of the nature and scope of current educational systems.

Nurturing, as a learning approach, grounded on the *chacra* and its relationship to the *ayllu* is helpful to the extent that it provides essential tools for social cohesion to take place on a local scale. However, though the *ayllu* can provide a counter example to rampant individualistic materialism, its survival hinges on the Andean culture's ability to navigate through the globalizing winds sweeping across its landscape. Having spent time with different *ayllus*, I see that those which remain today have strong convictions about their heritage and deeply long to pass their worldview on to new generations. Their conviction is often fueled by something greater than themselves. I believe it is faith. In other words, a firm moral and spiritual grounding that lays the foundation for the conviction and strength to persevere, even in the face of adversity, will ultimately ensure the survival and integrity of *ayllus* in the future.

However, while retaining the key principles of nurturing and caring, different *ayllus* may have to open their doors to include non-Andean people into their folds. Ultimately, it is not its 'Andean-ness' that contributes to the discussion on learning societies. Rather, the nurturing principles that have allowed the Andean people to survive centuries of exploitation and hardships, in what was already an austere physical environment,²⁰ are what are important. Principles such as mutual respect, cooperation, unity, and a healthy sense of pride in their work, their culture, and themselves are all values that are essential to the maintenance, well-being and longevity of learning societies, regardless of language, culture or creed.

Endnotes

¹ The Andean world is a vast region that follows the Andean range, from southern Colombia to central Chile. It spans the area of what used to be the Inca empire. The inhabitants of this region are the proud ancestors of indigenous people who lived in very close harmony with the land, the "pacha" or sacred land parcel that sustained them and was the connection between themselves and mother earth. For map and great images of the Andes and different peoples living there today refer to "In the Shadow of the Andes: A Personal Journey," in the Feb. 2001 issue of National Geographic Magazine or their web site at <www.nationalgeographic.com/ngm/0102/feature1/index.html>

² Rengifo V., p.168-69.

³ Apffel-Marglin with PRATEC, p.32.

⁴ Andean cosmology refers to the overarching philosophical worldviews that govern Quechua and Aymara cultures. It is a web of intrinsic relationships between the economy, technology, mythology, religion and ethics among others. Rather than relying on the western world "causality paradigm" the Andean world is guided by a seminal notion based on a biological model. The origins of life (plants, animals, water, stars) is the *pachamama* — the vital and generating force of a mythical universe — and is interrelated with intangible concepts such as health and family.

⁵ Rengifo V. in Apffel-Marglin with PRATEC, p.90.

⁶ Apffel-Marglin with PRATEC, p.32.

⁷ Grillo in Apffel-Marglin with PRATEC, p.24.

⁸ The term "agro-centric" is used here to refer to a whole social construct (Andean society) that is inspired and driven by their interactions with nature. Contrast this term to Euro-centric, where a whole social construct was formed around a sense of "European-ness," "whiteness" and "superiority" that inspired activities such as domination and exploitation of large areas of the world.

⁹ This constant and creative flux is not unlike the principles underlying "complex adaptive systems." The heart of complex adaptive systems is the study of the process of learning, "how systems detect patterns in the environment,

interpret and respond to those patterns, and change their roles for detection, interpretation and response based on experience. [...] “It is nature’s way of designing for learning” (Cleveland, 1994).

¹⁰ Grillo, et al., 1994.

¹¹ PRATEC, 1998.

¹² The “ita” ending on a word is a diminutive for small. In this case “*chacrita*” means small (and dear to one’s heart) *chacra*.

¹³ Coca (*Erythroxylon coca*) is a shrub that grows in the intermountain valleys along the Andean range. The Incas considered its leaves to be holy, a belief still deeply held by Andean campesinos today. It is also chewed and kept as a wad to the side of the mouth as a mild stimulant that helps fend off cold and hunger over the course of the field working hours. Coca leaves make living in the highlands (3,000 to 4,500 meters above sea level) bearable. Their stimulant effect can be likened to that of strong coffee or tea.

¹⁴ Meza in Urpichallay, p.x; translation by Genge.

¹⁵ Ventura & Ventura in PRATEC, p.42; emphasis added.

¹⁶ One can trace the introduction of the Green Revolution back to centuries of slavery imposed upon *campesinos*. This slavery first started under the Spanish conquistadors in 1534 and continued well into the 20th century, until the agrarian revolution of 1952, when *campesinos* were allowed to legally own land for the first time. Additional details can be found in Mesa, et al., 1999.

¹⁷ Boron & Torres, p.102.

¹⁸ Coraggio, 1997.

¹⁹ UNDP, 1996, 1999.

²⁰ The highland plateau region of Bolivia and Peru, is a cold and windswept semiarid steppe. Etching out a livelihood from the land at 4,000 meters above sea level is no easy task and yet the Quechua and Aymara people have historically managed to flourish and prosper in this environment. The *ayllu*, their social support network, was essential to their survival.

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