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Applying Epistemic Approach to Analyze Bio-intercultural Relationships Among Local Indigenous People and Nature.

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Alfredo Ortega-Rubio *Editor*

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Chapter 15

Applying Epistemic Approach to Analyze Bio-intercultural Relationships Among Local Indigenous People and Nature



Magdalena Lagunas-Vázquez 

Abstract This chapter presents a review of the socio-historic and cultural knowledge that conditions the ways of understanding, interpreting, and relating in and with the natural world from an intercultural perspective on the part of the local indigenous inhabitants of the natural protected areas (NPA) of Latin America. The Good Living theory will be the philosophical approach to develop the present analysis, from the ancestral indigenous American perspective, which is considered an integrating theoretical framework with a cosmic approach and not anthropocentric.

Keywords Interculturality · Intercultural dialogue · Biocultural conservation · Latin America

15.1 Introduction

The knowledge that conditions the ways of thinking, interpreting, and connecting in and with the natural world, from an intercultural perspective on the part of the local indigenous inhabitants of natural protected areas (NPA) of Latin America, is found in at least two large regions where two civilizations developed. The Mesoamerican and the Andean civilizations are two of the few thousand-year-old civilizations which modern society has inherited from the ancient world. The former encompasses center and southeast Mexico and practically all Central America (Díaz and Escobar 2006), while the latter, also known as Inca or Incan, is located in South America in the current nations of Peru, Chile, Bolivia, Colombia, Ecuador, and Argentina (Milla 1983; Mann 2006). Below, certain ancient historic generalizations about both will be described. This will concisely allow envisaging relationships, interactions, and knowledge said civilizations had about the nature that surrounded

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them. These correlations lead to worldviews and cosmogonies about nature and culture that still thrive today in various socioculturally diverse native peoples currently living in different regions of Latin America. In some cases, the lands of these peoples are now within protected areas.

The development of pre-Columbian cultures stems from a metaphysical, mythological world, where myths, rituals, and symbols are as essential for the creation of these civilizations as they are for the construction of the worlds of their ideas and the several cultural representation of said peoples (León-Portilla 1956; González 2003). From this perspective, the structure, creation, and recreation of pre-Columbian life were imbued with sacred aspects; every social expression was ritualized and held sacred (León-Portilla 1956; González 2003; Rivera 2018). From this idea, one can put together what was sacred of natural elements in their respective civilizations and cultures, since their lifestyles were closely related to nature (Fig. 15.1). For instance, there were more than 2000 gods in Mesoamerican civilization (León-Portilla 1956), among which goddesses and gods inherently related with natural elements dominated. A few of these are rain (*Tlaloc*), wind (*Ehecatl*), the sun (*Tonatiuh*), the moon (*Tecciztecatl*), corn (*Centeotl*), jaguar (*Ocelotl*), feathered snake (*Quetzalcoatl*) (Fig. 15.1), agave (*Mayahuel*), hummingbird (*Huitzilopochtli*), and coyote (*Huehucoyotl*) (León-Portilla 1956). Other examples are the idea of a major, comprehensive, and absolute entity in the Andean civilization, *Pacha*, the earth that connects to everything existing on it and the cosmos (Rivera 2018); and the deity *Viracocha*, its duality and its feminine symbols of moon and winter, and those masculine ones of sun and lightning (Kusch 1962).

This chapter presents a review of the knowledge that conditions the ways of thinking, interpreting, and relating in and with the natural world from an



Fig. 15.1 Snakes from the replica of the door to the Temple of Quetzalcoatl in Teotihuacan, Mexico. (Author: Bertram Bilek)

intercultural perspective on the part of the local indigenous inhabitants of protected natural areas (NPA) of Latin America. The epistemic approach of *Buen vivir* (“Good Living”) is presented as an integrating theoretical framework, with a cosmic, non-anthropocentric property, which enables guidance of interactions between cultural and natural diversity in NPA of Latin America in order to favor better biocultural conservation practices. Additionally, it is also intended that the information provided in the chapter will provide a better understanding about this ancient indigenous philosophical perspective from the Americas, as well as the interactions between nature and current rural native societies in Latin America.

15.1.1 *Mesoamerican Civilization and Its Relation with the Natural World*

Great cosmological myths¹ were the base of Nahua culture and thought. Specialist scholars consider this profound and rich thought, which was called *tlamatiliztli* by its creators, a philosophy (León-Portilla 1956; Mann 2006). Nahua culture developed literature and philosophical thought in *Calmecac* and *Telpochcalli* schools (This was possibly the first compulsory education program in history, since every male citizen of the Triple Alliance had to attend, regardless of social class, a kind of school until aged 16.) (Mann 2006). Ancient Mexican people cultivated history, poetry, rhetoric arts, arithmetic, astronomy, and every science of which they left proof (León-Portilla 1956). The *tlamatini*, who was in and of itself writing and wisdom, had to write and preserve codices and live as a role model to the community. Several *tlamatinime* (plural of the word) taught priests, teachers, and administrators of the next generation in elite academies (Mann 2006).

Besides physical, medicinal, and theological knowledge (León-Portilla 1956), Clavijero (1945) observes abstract concepts and metaphysical language in this ancient Mexican tongue. Philosophy, religion, and astronomical and physical ideas were painstakingly linked to one another (Fig. 15.2) (León-Portilla 1956). The aesthetic-artistic analysis of the *Coatlicue* (Fig. 15.3) greatly indicates the worldview and cosmological ideas of the Aztecs (Fernández 1972). Justino Fernández (1959) reads all the Aztec (Nahua) cosmogony on the sculpture, on which he finds pyramid, cross, and human shapes. This reflects the Aztec understanding, with its cosmic space and all its dimensions. It even mentions a Nahua aesthetic nature, for instance, as these ancient poets considered poetry the highest of languages, the truest, most beautiful way of saying something (León-Portilla 1956).

There is a theological conception of the *tlamatinime*, supported by the supreme dual principle (*Ometeotl*, god of duality). They conclude that there is a dual principle, their god, giver of everything that exists, female-male *Ometeotl* of twin

¹*Myth* in the sense of providing models for human behavior and conferring, for the same reason, meaning and value upon existence, from the perspective of Mircea Eliade (1991).



Fig. 15.2 The Sunstone of the Aztec Calendar, Mexico City Museum of Anthropology. (Author: Bertram Bilek)

Fig. 15.3 La Coatlicue god-goddess of earth, death, and fertility (idea that death is the generator of life) in Mexica mythology. Exhibited at the National Museum of Anthropology, Mexico City. (Author: Bertram Bilek)



divine nature (León-Portilla 1956). *Ometeotl* (god-goddess) and its relation with all natural things: rain, fire, water, earth, light, darkness, sky, cosmic forces. There are some existential characteristics of *Ometeotl*: lord of water and jade skirt, father-mother, and he who brings forth the light. This cosmic generation-conception (*Moyocoyani*) gives rise to the universe and constitutes being itself. He is the Lord who thinks or invents himself, he who no one shaped, and who exists beyond all time and place. These interpretations form the supreme climax of Nahua philosophical thought, which exalts thoughts and philosophical contemplation about divinity (León-Portilla 1956). With the philosophical conception about: Action and cosmic presence of pantheism *Ometeotl* (God creator of the whole universe); this civilization has an intellectual thought about the origin of the universe, the origin of nature, and origin of the world (León-Portilla 1956). They also possessed a vast polytheism in and with a symbolic myth language and symbolic references (Fig. 15.4) of natural phenomena of the origin of the afterlife and the divinity. Holders of lofty philosophical and cosmological ideas, metaphors, and myths, as those every thousand-year-old person in the world has (Clavijero 1945; León-Portilla 1956).

15.1.2 *The Andean Civilization and Its Relation with the Natural World*

The Andean civilization has developed a way of thinking of the world—Andean philosophy—which is precisely the *relationality* of everything, the network of nexuses and connections that is the life force of everything in existence (Milla 1983; Estermann 1998). There is nothing (in a very vital way) without this transcendental condition. It is a dialectical Andean rationality, both due to its underlying structure of conceiving reality and the abundance of phenomenological indications (Estermann 1998). For the *runaljaqi*, sky and land, sun and moon, light and dark, truth and



Fig. 15.4 Art Wixárika woven textile (Nierikas), Nayarit, Mexico. (Author: Bertram Bilek)

falsehood, day and night, good and evil, and male and female are not mutually exclusive, but complements necessary to declare a superior and comprehensive entity (Estermann 1998, Rivera 2018). This complementarity principle appears on every level and in every aspect of life, both in cosmic and anthropologic dimensions, as well as in ethical and social ones (Estermann 1998). The Andean ideal is not one of two extreme opposites, but the harmonious integration of both (Estermann 1998).

Maybe the highest thought of major, comprehensive correlation of this culture is the *Pacha* (Quechua/Aymara). This cosmogony and worldview is the symbolic representation of interconnected cosmos (*Pacha*/earth) through several cardinal axes; it is not about the western sense of “theory” or “view” (Milla 1983). The Andean philosophy of *Pacha* is a comprehensive conception-reflection of the cosmic relationality as a manifestation of the collective Andean experience of reality (everything that exists) (Kusch 1962; Estermann 1998; Rivera 2018). Andean time is not unidirectional (from past to future), but bio-multidirectional (Rivera 2018). For cyclical rationality, future is actually behind, and past is forward; but it is also all the way around. For the *runaljaqi*, history is not the space where new things, progress, or development toward something better is made; rather, it is a cyclical repetition of an organic process, corresponding to the cosmic order and its relationality (Rivera 2018). Basic tasks and skills of the *runaljaqi* consist of the power of symbolic presentation of the cosmos through ritual and celebratory ways. For the Andean human being, celebrations and rituals are gnosiologic and ethical acts of the first order. To celebrate the cosmic order (in a symbolic way) means to know it and preserve it (Estermann 1998; Rivera 2018).

In his book *Génesis de la cultura andina*, Carlos Milla (1983) mentions, among other things, the existence of Amauta wise men, who could be considered men of science or knowledge. The *Camasca Amauta Runa* were architects, who also appeared as great mathematicians and astronomers in this grand civilization. The *Capaccuna* was a sort of Andean communal confederate state. The *Tawantinsuyo* were communities or communal systems located in four regions related to the four stars of the Southern Cross constellation, a complex indigenous astronomical system of orientation directed southward (Milla 1983).

The Aymara nation had a helio-lunar 13-month calendar (Milla 1983). There are myriad astronomical and ritual observatories (astronomical ceremonial centers, circular observatories, wells, and other structural ways of measurement and observation of stellar phenomena) all over the vast Andean lands (thousands of kilometers) (Milla 1983). Their mathematical knowledge was captured in the extensive number of figurines and structures where geometrical and astronomical relations are plentiful (Milla 1983). In the southern hemisphere, the Southern Cross, which comprises four points that merge in one, determines the collectivist thought and the synthesis ability of Andean civilization. Archaeological sites suggest a cultural continuum and the existence of the communal state organized by the *Capaccuna* of the *Amautas*, which lasted for at least 16 centuries (from preceramic period). It had elements of the same scientific and cultural core (Andean Unitarian culture) (Milla 1983).

The Andean human being is then defined by relationships. It is, by itself, a *chakana*, a bridge or node of multiple connections and relations (Rivera 2018;

Estermann 1998). Firstly, the center of gravity is not the individual or a completely isolated person (*kat'authon*), but a meta-individual entity, which is not necessarily universal (Estermann 1998). The western individual is “nothingness,” a “total void,” a non-being for Andean philosophy. Individuality, if it were a value, is just conferred in a derivative and secondary sense, but in no way as a primordial, foundational fact (Estermann 1998).

In the Andes, the fundamental collective entity (one could even say it is transcendental) and the essential principle for identity is the *ayllu*, which is the ethnic unit of farmer communities and economic basis of survival and domestic trade (Rivera 2018). There is no exact translation for the Quechua/Aymara word *ayllu*. It is the ethnic unit of an Andean farmer community, but it can also refer to the extended family. It can even be the town or village in a geographical sense (*mark'a*) (Milla 1983). Andean ethics has the cosmic order, the universal relationality of everything in existence, as axiological foundation (cosmic ethics) (Estermann 1998). This order complies with the principles of correspondence, complementarity, and reciprocity (Estermann 1998; Rivera 2018).

Incan civilization domesticated potatoes. They made the frost turn from curse to blessing by inventing the *Ch'uñu*. They built a vast territory of agreed cohabitation, where cultural and material production, as well as its physical, geographical space, allows archaeological and sociocultural observation of local cultural expressions by identifying connections with the sun and moon cycles (Rivera 2018). Everyday nature showed creative acts, and acts of desire and imagination rooted in the landscape and the living memory of people. There is even an untranslated aspect due to other epistemological horizons (Estermann 1998): Aymara language, for instance, has four grammatical persons (I, you, he, she), and *jiwasa*, which is singular and collective (not the plural “we,” “you,” or “they”), is everyone and me. The collective singular *jiwasanaka* is a “we-human” that includes even the one that is not present (Rivera 2018).

The synthetic Mesoamerican and Andean cosmogonic, theogonic, and symbolic interpretation mentioned above can be considered Latin American indigenous thought. This allows identifying the sacredness of nature on these native human groups, illustrated in their extensive agrarian rites, knowledge of climatic and rain seasons, and a wide range of traditional ecological knowledge they implemented in their daily lives (Figs. 15.5 and 15.6). All this continues nowadays among the socio-culturally diverse human groups who currently inhabit these regions (González 2003; Toledo and Barrera-Bassols 2008; Calle et al. 2016; Naranjo 2018).

15.1.3 Andean Philosophical Approach: Is Buen vivir the Same as Sumak Kawsay?

Academic interest in researching the term *Sumak Kawsay* comes out of its inclusion in the Constitution of Ecuador in 2008. Its debatable translation as *Buen vivir* (“Good Living”) has roused several epistemological and ontological discussions.



Fig. 15.5 Milpa corn plant, main agro-food of the Mesoamerican culture. (Author: Bertram Bilek)



Fig. 15.6 *Mazorca* (cob, tender corn), main agro-food of the Mesoamerican culture. (Author: Bertram Bilek)

Currently, three schools of thought study the emerging paradigm of *Buen vivir*, as stated by Cuestas-Caza (2019): indigenous-culturalism, post-developmentalism-ecologism, and socialism-statism. According to Cuestas-Caza's analysis (2019), each of them has interpreted the indigenous knowledge related to *Sumak Kawsay* in different ways, which has led to several questionings. Among them, there is a possible epistemic extractivism in the usage and content of the term *Buen vivir*. Moreover, in practice, the inclusion of *Buen vivir* in the Constitution of Ecuador in 2008 and the acknowledgment of the rights of nature have given rise to a series of critiques and political-environmental dilemmas due to the neo-extractivist public policies implemented by the government of Rafael Correa (Cuestas-Caza 2019).

No one knows precisely when and how the words *Sumak Kawsay* appeared to refer to Andean system of life (Oviedo 2017a). Truth is, this thousand-year-old system of life of Andean people did and does exist, with its principles, models, institutions, and a kind of Andean consciousness (*Tawantin*) that envelops the system of life of the native peoples who have inhabited the Andes for more than 10,000 years (Oviedo 2017a). An expression in Kichwa language that might be similar to *Buen vivir* is *Alli Kawsay*, not *Sumak Kawsay*. *Alli Kawsay* expresses the integrality and the wish to improve the quality of life interdependently with beings in the environment, at personal (*runa*), family (*ayllu*), community (*llakta*), and intercommunity level within a territory. Involved social individuals come and go searching for *Alli Kawsay* through everyday actions (Cuestas-Caza 2017).

As a result of a wide documentary review, Cuestas-Caza (2019) describes, from a phenomenological perspective, that *Sumak Kawsay* represents an indigenous way of life, different from the Euro-American "way of life," and that would have been present for hundreds of years, and that would still prevail nowadays. Unlike the western model, *Sumak Kawsay* centers on what is communal and on reproduction and care of life (*Kawsay*), which would relate to the proposals of care economy and feminist economy. The concept of *Sumak Kawsay*, or *Buen vivir*, refers to an ancient social phenomenon that continues today: the way of life of the Ecuadorian Amazonian native (Kichwa, Achuar, and Shuar). It is based on the search and the keeping of the harmony among oneself, the community, and all other living beings in nature, in the protection of the Amazon rainforest, through the combination of spiritual and material elements (Cuestas-Caza 2019).

According to Oviedo (2017a), the Andean consciousness does not conceive the dichotomy between "good" and "evil" (justice-injustice, peace-war, developed-underdeveloped). Firstly, because it does not accept the existence of evil. Secondly, because it does not value elements as good or evil, but just as they exist, living and coexisting. This sort of thought is not concerned by an assessment of good-evil, positive-negative, for it considers there are no good, bad, positive, nor negative experiences. There are only experiences, without any description or classification whatsoever (Oviedo 2017a; Rivera 2018). Consequently, *Alli Kawsay* is considered superfluous and minute to the Andean world. Hence, mixing *Buen vivir* with *Alli Kawsay* is "dangerous," and it is even more with *Sumak Kawsay* (Oviedo 2017a).

Although *Buen vivir* and *Sumak Kawsay* are not synonyms, the debate about them has certainly opened up doors for the West and the Andes to start an intercultural dialogue on equal conditions, where two different civilizing nuances can

establish an epistemic exchange (Quijano 1992; Grosfoguel 2013a, b), even when their principles may be considered incompatible (Tavares 2013). This dialogue is essential to compensate the exhaustion *Bien vivir* and Andean thought suffer after years of neo-extractivist governmental policies (Cuestas-Caza 2019).

In a case study in Imbabura, Cuestas-Caza (2019) found that native peoples understand and live *Sumak Kawsay* in a profound relation with nature. They have an institutionalized community sense, which they express mainly in rituals, parties, and diverse celebrations. The researched communities understand *Sumak Kawsay* as a “recreated tradition” that represents their social life project, a utopia if you will. Although this is a recent term in their vocabulary, they have started to appropriate it (Cuestas-Caza 2019).

Among the contributions of literature specialized in definitions of *Buen vivir* from the perspective of ancient native peoples of the Americas, the following conditions stand out: every definition is about integrative, cosmic non-anthropocentric aspects, in some way (Estermann 1998; Oviedo 2017a; Rivera 2018). Below, there is a translated quote about the term *Buen vivir*:

Buen vivir advocates a world “made of many worlds”, where different cultural rationalities coexist, confront and dialogue. It is based on the acknowledgment and respect of difference and diversity. Difference as wealth of life and diversity as the most beautiful expression of existence (Oviedo 2017b).

If *Buen vivir* is an ethical approach, in an essential sense of the term, it is important to advise from the beginning that it is not a thoroughly complete, undebatable one (Jiménez 2011; Dussel 2013; Cuestas-Caza 2019). On the contrary, it is in a process of pluralistic, complex, and controversial construction. Thus, to understand it in a useful way, it is necessary to have previous knowledge of the profound, vital contexts of ancient Andean culture, from which *Buen vivir* is product and expression (Jiménez 2011).

Following Cuestas-Caza’s contributions (2019), *Sumak Kawsay* is still a very abstract concept that needs to be fueled by the empirical study of practices and knowledge of native peoples. These studies must be based on real coexistence and mutual learning, putting aside the characteristics of classic ethnography to introduce elements of critical, intercultural, decolonializing ethnography (Fornet-Betancourt 2009; Cuestas-Caza 2019; Grosfoguel 2019). Therefore, the Academy has a great responsibility that goes beyond westernized ethnography and the intellectual comfort of cross references.

Oviedo’s proposal (2017a) are indispensable here:

The least, but most appropriate thing to do, for a responsible, serious researcher, is to try to enter the consciousness of the people, and then, dare to make hypotheses, even though internalizing a culture to speak with property and profoundness would be of uttermost importance. If a philosophy is not lived personally, it becomes susceptible to manipulation and deformation. Thus, even when the best of intentions encourage some individuals, and despite being descendant of native peoples, their positions may end up being part of the indoctrination and perennial civilizational catechesis. (Oviedo 2017a).

It is in the interest of this work to contribute guiding methodological elements to establish ways to interrelate the philosophical approach of *Buen vivir* with the native peoples of the NPA of Latin America, in favor of biocultural conservation.

15.2 Biocultural Conservation: Epistemic Diversity and Ecosystemic Biodiversity

15.2.1 *Relationship Between the Local Native Inhabitants of NPA with Nature and Environmental Conservation*

The lands of indigenous peoples all around the world intertwine with approximately a 40% of all protected areas and over 65% of the most distant and least inhabited territories on Earth (Garnett et al. 2018). There is a clear overlap between the areas with the most biodiversity in the planet and the regions densely inhabited by the indigenous population of the world, since a high biological and linguistic diversity coincides there (Toledo 2001, 2005; Maffi 2005). According to the World Wildlife Fund, 4635 ethnolinguistic groups live in the 238 land eco-regions that are most important due to their biological diversity. This figure represents 67% of all ethnolinguistic groups identified on Earth (WWF 2000).

Berkes et al. (2001) consider there is a coevolution between culture and nature. According to Pretty et al. (2009), this interaction is a process that has been taking place for thousands of generations. Therefore, the conservation of biodiversity is impossible without taking into account the sociocultural factors that, as a whole, condition it (Mascia et al. 2003). Many traditional rural societies that coexist with adjacent nature (Fig. 15.7) and depend on it for their survival live together in such way that allows the conservation of biodiversity (MMBT 2004, Luque and Doode 2007, Pretty et al. 2009).



Fig. 15.7 *Nopales* (cactus) and local inhabitants of San Nicolás Tetelco, Tláhuac Delegation, in Mexico City. (Author: Bertram Bilek)

During the last decades, there has been considerably more academic information endorsing Traditional Ecological Knowledge (TEK), as well as local knowledge about the use of natural resources by the inhabitants of rural and indigenous environments. These include conceptualizations of transdisciplinary terms, such as socioecological system (Burger et al. 2001; Berkes et al. 2001; Toledo 2001, 2005; Pretty et al. 2009; Merino and Martínez 2014), socrionatural systems, socioecosystems (Robertson and McGee 2003; Folke et al. 2005; Johnson et al. 2016), biocultural heritage and Mesoamerican trend or school of thought of Ethnoecology (Toledo and Barrera-Bassols 2008; Toledo et al. 2018; Alarcón-Cháires and Toledo 2018).

15.2.1.1 Indigenous Peoples, Traditional Ecological Knowledge, and Biocultural Conservation

Indigenous peoples comprise approximately 5% of world population and manage 11% of world forest lands. They usually own, occupy, or use between 22% and 65% of land surface of the Earth (UNDP 2011; RRI 2015). It has been estimated that native lands and other areas protected to safeguard rights on land, indigenous means of substance, biodiversity, and other values contain over 312 trillion tons of carbon (Joly, 2009). Recent analysis reveals that the indigenous territories of the Amazon basin, the Mesoamerican region, the Democratic Republic of the Congo, and Indonesia contain over 20% of all the carbon stored in the surface of the planet, all on their own (AMPB et al. 2015).

Indigenous peoples and local communities depend directly on their immediate environment to meet their basic needs of survival; thus, they are affected by the global environmental change (Reyes-García et al. 2019). Indigenous peoples play a fundamental role in the conservation of biological diversity and protection of forests and other natural resources. Due to their close relationship to their environment, they are keepers of the learning and knowledge about how to successfully deal with weather variability at local level and how to respond effectively to great environmental changes, such as natural disasters (Ramos-Castillo et al. 2017).

A study to assess conservation of the forest in the Bolivian Amazonia has identified a prominent overlapping between TEK (spatially overlaying 624 homes in 59 villages to estimate TEK) and conservation of the forest (using remote sensing data) in the Bolivian Amazonia. Therefore, the use of TEK in development, conservation, and climate-related policies is highly recommended. Besides taking urgent action to protect indigenous cultural systems, it is crucial to create policies that are more effective in these fields (Paneque-Gálvez et al. 2018).

A multi-criteria participatory analysis with native communities from northern Rupununi, Guyana, where local participants analyzed their own situation by defining indicators of meaningful successful strategies for them, defined six good practices that are environmentally sustainable. These strategies are closely bound to the themes of native knowledge, governance and local values, and associations and

networks. Said work identified that reinforcing and debating sustainable practices, and displaying them in communities, makes people take pride on what is local (Mistry et al. 2016).

Many studies all around the world demonstrate that indigenous and local peoples play a fundamental role in successful relief efforts. It should even be considered that current global responses to climate change will fail unless they are based on the acknowledgment of the rights of indigenous peoples and local communities, their territory, and their means of subsistence (Ramos-Castillo et al. 2017; Blackman and Veit 2018; Rights and Resources Initiative 2015). Indigenous knowledge can be used in the practice of climate governance (Chanza and De Wit 2016). Case studies in diverse places, such as China, Kenya, and the Bolivian Andes, show that the use and knowledge of the varieties of traditional farming are essential for adapting to an unpredictable weather (Nakashima et al. 2012).

It is recognized that diversity of life includes both biological and cultural-linguistic diversity (Berkes et al. 2001; Boege 2008, 2009; Toledo 2001, 2005; Pretty et al. 2009; Maffi 2005; Maffi and Woodley 2010). It was more common to divide nature and culture some years ago (Tylor 1871; Lévi-Strauss 1987). This partly comes from a dualist conception and a desire to control nature, both of which are typical of western culture (Descola and Pálsson 2001; Hviding 2001; Desmet 2014; Galceran-Huguet 2016). The great variety of academic subdisciplines that have appeared in the last decades confirms this recent way of thinking of biological and cultural diversity as interconnected and interacting (Pretty et al. 2009; Lagunas-Vázquez et al. 2017). The conception, interaction, and complementation of interdiscipline, as well as the acknowledgment and validation of other knowledge, are helping with understanding the degree at which biological diversity is bound to cultural (Leff 1994, 2006; Shiva 1995; Dussel 2014; Lander 2000; Grosfoguel 2013a).

Conservation of nature has been conceived within western epistemic discourse (Hviding 2001; MacDonald 2004); thus, biological diversity has been written in anthropocentric (Haraway 1995; Ollantay 2014), Eurocentric terms (Gudynas 2011; Desmet 2014) within capitalist discourse (Leff 2006; Dussel 2014). Some authors currently use the term of western conservation within the theme of conservation (Desmet 2014; MMBT 2016). The western conception of science is presently the only dominant way of creating, consolidating, and legitimizing knowledge (Kuhn 1975; Feyerabend 1986; Quijano 1992, 1995, 1999, 2000a, 2000b, 2007; Castro-Gómez and Grosfoguel 2007; Walsh 2007; De Sousa Santos 2010; Dussel 2014; Galceran-Huguet 2016). This is only one way of seeing and understanding or interpreting the world (De Sousa Santos 2010; Grosfoguel 2013b; Dussel 2014).

From the perspective of acceptance of other knowledge, the ancient philosophical thought of *Buen vivir* can be considered an epistemic, theoretical, and methodological approach that can contribute to conservation of nature in NPA of Latin America. This is especially true concerning cultural and natural diversity, multicultural and intercultural interaction, and acceptance of other knowledge and its integration in activities that favor biocultural conservation.

15.2.2 Indigenous Worldview of Interrelation with Nature

Before most NPAs were declared as such in Mexico, there were communities already inhabiting them and using their natural resources (Bezaury-Creel and Gutiérrez-Carbonell 2009). Alcorn (1994) claims that a big part of the biodiversity of the planet is within indigenous territories, which is also the case in Mexico according to Boege (2008, 2009). Regarding human population in NPA in Mexico, 46% of them are home to indigenous population as of April 2016 (Lagunas-Vázquez et al. 2017). Out of the total land surface that comprises NPA in this country, which is 25,628,238 ha (CONANP 2016), over 60% is social property (Bezaury-Creel and Gutiérrez-Carbonell 2009), including more than 30% of indigenous territory (Boege 2009).

Latin America and the Caribbean are estimated to have around 800 cultural groups and a population of 43 million (Delgado 2004). Calculations for the same region consider that natives inhabit at least 80% of NPA (Alcorn 1994). Countries such as Bolivia, Guatemala, and Ecuador are prominent with indigenous populations of 70%, 47%, and 38%, respectively (Delgado 2004). The number of native languages in some countries of South and Central America is noticeable in Brazil (185), Peru (75), and Colombia (47). There are at least 216 indigenous groups in Brazil, of which there were almost a thousand in the sixteenth century (GEO 2002). Most of these indigenous peoples gather around tropical rainforest zones (Toledo 2001).

The nature in the present Americas is, in most of its areas, a social construction, since man has altered it throughout time (Dachary and Burne 2009). Recent studies mention that the population of the Americas before 1492 was much larger than that of Europe during the age of Spanish Conquest (Mann 2006). The jungles and forests of the Americas have lasted because there are peoples that coexist with this reality to which they are so bound. Therefore, not only is nature without these peoples a false idea, but it is also anti-ethical, because those who live in and maintain it are not taken into account (Dachary and Burne 2009).

The Pristine Myth, as coined by geographer William Denevan (Mann 2006), is the false belief that the Americas were practically intact before the arrival of the Spaniards. According to Mann (2006), in spite of the fact that the aforementioned statement is false, it laid down the foundations for the Wilderness Act of 1964 in the United States. This document is foundational for the global environmental movement.

The pre-Columbian Americas included, in their two largest civilizing regions, vast inhabited territories, and their populations were larger than dozens of millions of people (Mann 2006). In Mesoamerica, the Triple Alliance, led by the Mexicas or Aztecs in the Central Mexican Plateau, had a population of 5 (Semo 2019) to 25.2 million people; as of the age of the Conquest of Mexico, it was the most densely populated region in the whole planet (Mann 2006). Mesoamerican cultural peoples invented a dozen different writing systems, established very extensive trading routes, registered the orbits of the planets, created a calendar with 365 days a year

(which was much more exact than those in Europe, at that time), and registered their own history in books made of bark. One of their greatest intellectual feats was the invention of zero (Mann 2006). The Olmecs, the Mayas, and other Mesoamerican societies were world pioneers in mathematics and astronomy. The Maya territory, a collection of around 60 cities and kingdoms that formed a complex network of alliances, was home to one of the most sophisticated intellectual cultures in the ancient world of the Western Hemisphere before 1492. According to present information, it was a thriving place of amazing diversity, with outstanding social, political, and economic systems, hundreds of languages, and dozens of millions of inhabitants (Mann 2006; Díaz and Escobar 2006).

As of 1491, the Incas had the vastest empire on Earth. Inca territory spread throughout 32° of latitude. This empire covered all imaginable types of terrain, ranging from rainforest in the Ecuadorian Amazonia to the deserts of the Peruvian coast or the Andean peaks at 6000 meters above sea level. The potential of this empire, in terms of environmental adaptability, shows how the Incas were the most impressive builders of empires of their time (Mann 2006).

15.2.3 Biocultural Perspective to Conservancy and Inhabit Nature from the Approach of Buen vivir

This new biocultural paradigm is propelling a new idea: not to separate the study and conservation of biodiversity from the study and conservation of cultures (Toledo and Barrera-Bassols 2008; Toledo 2013; Gavin et al. 2015). Among other premises, it establishes that there were around 12,000 languages in the world 5000 years ago, but the European expansion to Africa, Asia, and the Americas—for instance, the Conquest of what is now known as Latin America—wiped out almost half of them. Nowadays, there are 18-thousand-year-old cultures in Africa, and 40-thousand-year-old ones in Australia. The Pigmies, considered the oldest living culture in the world, are 60,000 years old (Toledo and Barrera-Bassols 2008).

In actuality, there are diverse cultures in different countries of Latin America (Fig. 15.8). Among them are the thousand-year-old hunter-gatherer Seri from Sonora, who existed without agriculture, based solely on fishing, hunting, and gathering. The Huastecs, the Mayas from Yucatan, and the Waraos from Venezuela are all 3000 years old. In Mesoamerica, the Wixarikas (Huichols) (Fig. 15.9) have made their pilgrimage to the desert of San Luis Potosi for 2500 years (Toledo and Barrera-Bassols 2008). According to some authors (Toledo and Barrera-Bassols 2008), the greatest intercultural questions that would reveal relevant information for sustainability and conservation of nature are: How have these communities been able to survive for so long? What mechanisms do they have for survival? What is their view on the knowledge and appropriation of local resources? How do they see the world?

Some scientists (Toledo and Barrera-Bassols 2008) currently consider these ancient cultures, with a plethora of millenary, long ignored, unappreciated, or



Fig. 15.8 People, Tzotzil; locality, Marcos E, Becerra, Chiapas. (Author: Bertram Bilek)



Fig. 15.9 Art Wixárika woven textile (Nierikas), Nayarit, Mexico. (Author: Bertram Bilek)

misunderstood wisdom, as keepers of the key to overcome the present ecological and social crisis (Toledo and Barrera-Bassols 2008; Alarcón-Cháires and Toledo 2018). The conservation of nature and environmental sustainability have been dealing with the problem of biological richness or biodiversity. Therefore, given the ecological and social crisis in the contemporary world, identifying and acknowledging the biocultural memory of human kind is essential, since it allows having a lasting historical perspective, revealing the epistemological, technical, and economic limits and bias of modern life, and visualizing solutions to current problems at a civilizing scale (Toledo and Barrera-Bassols 2008).

15.2.4 Guiding Methodological Elements with the Philosophical Approach of Buen vivir for Biocultural Conservation

In the NPA of Latin America, it is important to consider the significance of biocultural diversity and to establish management and governance from intercultural interactions (Toledo 2015; Zalles 2017) and within the conceptual framework of *Buen vivir*. Below, some recommendations are given as guiding elements to establish ways to correlate the philosophical approach of *Buen vivir* with the indigenous peoples of the NPA in Latin America, in favor of biocultural conservation.

This ancient indigenous perspective from the Americas is considered a theoretical integrating framework with a cosmic, non-anthropocentric approach. As Oviedo (2017a) mentions, there is no way to *Sumak Kawsay*, but *Sumak Kawsay* is the way (just as there is no way to love, but love is the way). The journey of *Sumak Kawsay* is at least 10,000 years old, so starting to speculate with new hypothesis is not the idea (Oviedo 2017a). Syncretism is not valid, nor is minimizing, inclusion or mixture. Hybridization can only happen between elements of the same paradigm. Unifying the different views of *Buen vivir* is not the intention, either. To dogmatize through ideological theories and rhetoric that do not come from living and experiential feeling-thought, or to make individualists views when this is a communal millenary process, would be to undervalue the historical and experiential process of those who shaped it throughout a very long lifetime. Reductionist, civilizing paradigms should not be applied to a multiversal, vitalist archetype either. Likewise, it should not be romanticized by believing this system can become paradise. *Sumak Kawsay* is a philosophical theory with ideals and principles that regulate and constitute it. Nonetheless, this is the challenge or motivation to apply it in its entirety and profoundness (Oviedo 2017a).

It is important that all societies, cultures, and human groups that opt for a radical change (paradigm shift) in human relations and their relationship with nature allow indigenous philosophical roots to guide them on the way of *Sumak Kawsay*. As Oviedo (2017a) mentions, it is not valid that some groups or peoples want to appropriate it and claim it as theirs. *Sumak Kawsay* has nothing to do with peoples, ethnic

groups, geographies, or communities that want its exclusivity in any sense or way. Throughout the history of humanity, every culture has known and practiced vitalism in different periods of their existence, and in different regions of Mother Earth, with different names within the same essence of coexisting with nature in a harmonious way (Oviedo 2017a).

(a) *Content Ethics: It Is Experiential, from a Community*

Buen vivir delights (ecstasy) in an immense cosmos, and its being and doing in the world come from there (Estermann 1998). *Buen vivir* reflects a vast expression of experiences, a collective interpretation of “reality,” and, at the same time, a hermeneutical interpretation of phenomena (Estermann 1998). *Buen vivir* can be considered an everyday activity (full development of a community), which is also harmonious, anthropocosmic, solidary, bioethical, and biopolitical (Dussel 2013). From these philosophical life proposals, only certain projects, based on respecting the *Pacha*/Earth (Dussel 2013), can be developed within the territories of the NPA: those that are anti-extractivist (respecting the nature), multi-intercultural (respecting among cultures), and non-bourgeois (political system of complete participation and self-management, participative democracy).

(b) *Communal and Cosmic Life*

Life is communal and cosmic in the mythical world, that is, in the symbolic narrative of a determined human group, where nature is Mother Earth or *Pacha* (Dussel 2013). This includes the entirety of cosmos with all due respect (León-Portilla 1956; Estermann 1998; Dussel 2013). Therefore, those who live there respect the ecosystems, take care of water, and protect the forest in real life, in their everyday life. Some peoples native to Mexico show examples of this kind of communal life: Cherán (Lemus-Jiménez 2013; Campos and Partida 2015), other native groups in the Sierra Norte de Puebla (Gledhill 2013), and some towns in Chiapas (Marcos 2010; Mujeres and La Sexta 2017a, b).

(c) *Reconfiguration of Vital Principles in the Natural Protected Areas*

To the common westerner, nature is natural resources; while to the thought of native groups from the Americas, the *Pacha* is nature. It is a living entity, a living being interconnected with everything; between humans, everything live and the cosmos (Estermann 1998; Dussel 2013). It also has a bio-ecological interrelation between human being and the cosmos (Dussel 2013; Rivera 2018), which is symbolic and sacred, but not religious, since it is about complete dignity and unquestionable values—loyalty, integrity, justice, freedom, peace, equality, and so on (Dussel 2013). *Buen vivir* coincides with some conventional principles or basic life values (universal human rights), but it adds others, which complements and reconfigures the entire unique, universalist conception of human rights. Thus, it adds reciprocity, correspondence, harmony, balance, stability, polarity, cyclicality, dynamic stability, and complementarity to equality, freedom, peace, solidarity, social equity, and social justice (Oviedo 2017b).

(d) *Other Biocentric Valuation*

There is a fracture between the civilizing mechanistic paradigm and the archetype of vital consciousness, between the western thought and that of the indigenous people of the Americas, which contrasts two very different life systems (Milla 1983; Estermann 1998; Lajo 2003; Dussel 2013). Indigenous cultures do not live by quantifiable, discriminatory, penalizing parameters, but by pragmatic, sensitive, relative archetypes that respect complementary diversity (Oviedo 2017a). To the Andean world, politics and economy are not core issues, but consciousness (or totality) is (Oviedo 2017a; Rivera 2018). Regarding economy, it is “not anthropocentric, nor market centric, but *biocentric*, that is, with life and the conservation of the live at its core.” Since there is no sector or level that is completely motionless (or lifeless) in the Andean worldview, indigenous economy is also cosmocentric (or “*Pacha-centric*”) (Oviedo 2017a; Rivera 2018). Vitalism does not work with democracy either, but in consensual synergy or *biocracy* (Oviedo 2017a).

Consequently, valuations that foster harmonious reconciliation between two conflicting parties should be included. Both parties have to seek consensus through mediation until they reach an agreement that is relatively satisfactory for them (Oviedo 2017a). This is engaging in a dialogue (De Sousa Santos 2010; Dussel 2013). That means no authority from the outside imposes a truth, nor is there a punishing system. The same parties decide under the observance of all the community, which serves as guarantor of the reestablishment of the comprehensive balance of everybody. Hence, in the Andean world, the *Qhapaq Ñan* is not the “way of the just, the righteous, the noble,” but the motivational way that takes to complete balance and harmony (Oviedo 2017a).

(e) *The Meaning of Life: Kapak Ñan and Yachak Ñan*

In the Andean philosophy, *Kapak Ñan* and *Yachak Ñan* can help solve problems with agreeing on civilizing matters, such as peace, autonomy, independence, justice, self-determination, freedom, and politics. *Kapak Ñan* and *Yachak Ñan* are ancient teachings for new generations to have the possibility of following the sacred path toward a new consciousness—of the meaning of life (Lajo 2003; Oviedo 2017a). One could even think of it as a kind of high consciousness, such as the one practiced in Buddhism through meditation. It is the ability a human being and a society have to rediscover the secrets and mysteries of the laws and models of life, that is, of nature. It is then possible to move through all its powers, talents, and skills in complete harmony and balance: a conscious way.

This understanding is known in the Andean case as *Kapak Ñan* or *Qhapaq Ñan* (way of spiritual beings), whose opposite complement is *Yachak Ñan* (way of the wise beings) (Oviedo 2017a). They are the consciousness of being lucid to awaken or reactivate. They are complementary to each of the elements and manifestations of life altogether (Oviedo 2017a). They are a learning.

(f) *Conscience of Life: Sacred and Holistic Dimension*

Kawsay (“coexist/get along”) is not a trivial or common living, but one that implies a sacred and holistic dimension (Estermann 1998; Oviedo 2017a; Rivera 2018). *Kawsay* is not a mundane and disjointed act, but an integral-integrative sacred coexistence of life. It also has a subtle state of the living energy (vital *elan*) that other cultures around the world observe in philosophical and mystical traditions. Some examples of this essential force of life are *prana* for the Hindus, *aether* for ancient European cultures, *chi* for the Chinese, *ki* in Japanese culture, *ushai* in Ecuadorian Kichwa, *sama* for the Aymaras, and *kawsay* for the Quechuas. For Andean priests, the world is made up of a variety of living energies, which receive the collective name of *kawsay* (Oviedo 2017a).

The word *sumak/suma* is very special in the Andean world, since it comprises several meanings: harmony, balance, whole, wholeness, aware, culture, quality, beautiful, healthy, pure, art, equity, wisdom, totality, sublime, sacred, mutual, complementary, corresponding, comprehensive, holistic, symbiotic, synergic, and homeostatic (Oviedo 2017a). To coexist lovingly (*Kuyay Kawsay*) and to coexist wisely (*Yachay Kawsay*) are necessary to coexist in a complementary way, recreating harmony and balance in every manifestation of life. Therefore, *Sumak Kawsay* is also “to know how to coexist and support each other.” This view is similar to the definition ancient Greek philosophers had of the word philosophy: wisdom of love, or love for wisdom (philos: love; sophos: wisdom) (Oviedo 2017a).

Sumak Kawsay is the knowledge of the thought-feeling of life, or more precisely, it is conscious life, conscious coexistence, life philosophy (to know how to love life), or the art of living in complement to one another (Oviedo 2017a; Rivera 2018). Hence, this concept should be only one word, *Sumakawsay*, so as to also express that nothing is separate and because words are agglutinative in Kichwa, especially when expressing models of life. This is the case of *Sumagamaña* in Aymara (Oviedo 2017a).

15.3 Conclusion

The ancient history of (pre-Columbian) Latin America, concerning nature and natural resources that exist in the region nowadays, guides current contexts of socioculturally diverse human groups that inhabit it now. This applies to the knowledge of nature they have, as well as the traditional uses and interactions they have with their surrounding nature. Consequently, it is indispensable to consider the significance of biocultural diversity, the integration of intercultural correlations, and the approach of *Buen vivir* in any human activity that relates with nature. It is an urgent necessity for humankind to opt for biocultural memory (Toledo and Barrera-Bassols 2008) or ancient memory (Oviedo 2017a). Fortunately, it is there, in our collective unconscious, which we must recover, as indicated by Oviedo (2017a), after having strayed from the natural and conscious pathway.

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