"Men are interested only in root crops". Food security gendered policies in the Kingdom of Tonga

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Abstract

Recently the farlands of Oceania have entered a food security global discourse because of the climate change threat to food security. In the Kingdom of Tonga, such threat has promoted a large number of projects, often through female participation, imposing outsider values of food and reinforcing the nexus of gender and nature. This imposition on an indigenous system that embodies figuratively and literally the values of food, tackles the population's food sovereignty, whose wellbeing is linked to land rights and access to food.

By illustrating the core values of food throughout the Oceania cultural setting and the changing foodscape, land system and bodyscape, in which size and resources have a discursive interaction, I will discuss ethnographic data regarding a recent "urban horticulture" project aimed at building local food security, healthy eating and women empowerment. I will also question to which extent a "glocal" agenda, rather than a new rights framework for food and nature, can guarantee food sovereignty and the population well-being.

Keywords: Gender; Food; Body; Agricultural practices; Food sovereignty

Gendered perceptions of food values are embedded in any social system. In many ways, indeed, food establishes and reflects male and female identity, relationships and spheres of action. In Oceania, where food permeates daily and ceremonial occasions accompanying reciprocity processes, there are many examples of such reflection. Among the Trobriand Islanders, for example, the act of eating yams together in public communicates a bond:

two people about to be married must never have a meal in common. Such an act would shock the moral susceptibility of a native, as well as his sense of property (Malinowski 2002, p. 75).

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Also, according to the Dobuans yams are like humans: not only they have ears by which they respond to incantations of growth, but they also walk at night. Dobuan men seduce both wives and yams for prestige and control of magical powers, in a society where each matrilineage has a line of yam seeds, secured, inherited and productive only for the members of the matrilineage who possess it. Husband and wife raise therefore yams together but keeping them separated from the garden to the kitchen: a partner does not eat the yam of the spouse although both lines are fed to the children (Fortune, 2004). The Hua of Papua New Guinea reveal as well complex gender relations in their food conceptions. The division of foods in two categories, that of cold, wet, soft, fertile, fast growing named koroko and that of hot, dry, hard, infertile, slow-growing named hakeri'a, mirrors and establishes the gender division being the first associated with the female world and the latter with the male one. Although the categories of food are well separated, both women and men can temporarily embody some characteristics of the opposite sex by eating some staples belonging to other's category: on the one side women might eat some hakeri'a food to reduce their menstrual flow, while on the other, men

proclaim publicly that female foods and substances are not only disgusting but also dangerous to the development and maintenance of masculinity. But they secretly eat food associated with females to gain their vitality and power (Couniham 1999, p. 10).

Likewise in Tonga, the core values of the diet's basic staples-taro and yammap the male and female roles and spheres of action. During my fieldwork¹ I was kept afar from my Tongan family's 'api 'uta (field in the bush) when they were harvesting yams in order to make sure that they would be big when dug out, since the bigger are the yams the higher is the social status of their owner. During the harvest women must be far away from the field, because yams might get jealous and turn out small.

According to local mythology, indeed, the first man was born from the taro plant, while yam is considered to be female. The first is everyday food, without which a meal cannot be considered as such making the two terms *talo* (taro) and *me' a kai* (lit. food) interchangeable (Cottino 2013); the latter is ceremonial food, not to be eaten in daily occasions. Yams carry *mana* and are gifted, offered and consumed in ceremonies, circulating similarly to women whose residency after marriage is virilocal. Kerry James has argued, although with some criticism related to a non-exclusiveness gendered *mana* dimension, that men and women embody different forms of power. While

¹ I have started carrying out my fieldwork in the Kingdom in 2008, since then I have continued to collect data in the following years.

men embody a more political power, *pule*, through the land entitlement, women embody a more magical and spiritual power, the *mana*, perceived as very powerful and endowing women with a great deal of decision making power with regards to their male siblings and on land issues (James 1997). *Mana* is also embodied and shown to the public gaze through the weight of the body: "women in Tonga are big because of their *mana*" argued an interviewee of mine, proving a discursive interaction between size and resources.

Mirroring the pyramidal local social stratification, food is hierarchically organized, and, as a result, local land products and the associated taxonomy have a specific social weight. Thus, yam and taro's meanings are not arbitrarily defined but derive from the roles they play in the social and economic life. They are symbols working because they are "a tangible representation of the intangible social and cultural forces that organize material life" (Weismantel 1988, p. 8). As Mary Weismantel puts it for the Andean Zumbagua population "a bowl of boiled potatoes or a plate of white rice is at least three different kind of things: it is a sign, a symbol, and a product" (1988, p. 7).

Furthermore, the traces of cultural and social gender values lying behind the circulation and consumption of specific staples are even more evident in the land access and labor division. In such regards my observation of the Tongan landscape and foodscape has revealed a territorial division which outlines the spaces of gender pertinence and the ecological-dietary distribution.

The current land division is the result of a crucial legislative act dating back to 1875: the first Constitution of the Kingdom of Tonga. According to Ian Campbell, the 1875 Constitution replaced the former chieftaincy system abolishing the rights of all chiefs who did not submit to the power of Tupou I, the first king of Tonga².

By dividing the land into habitable and cultivable, the Constitution transformed the population into farmers (Campbell 2001), assigning by right two plots of land to each first-born male above 16. Many professional activities, strictly linked to pre-Christian beliefs, were weakened by this strategic act, which if on the one side guaranteed a more stable food security to the *tu'a* (the commoners), on the other was a missionary attempt to push the population under the Christian church influence. As a result, each Ton-

Never colonized, the islands of Tonga had a strong protestant missionary presence since the early decades of the XIX century, who supported their unification under one crown in order to have only one interlocutor. After converting to Christianity, the chief of the central archipelago of Ha'apai, relied on the missionaries who sustained his leadership. A civil war among chiefs had characterized the previous century (1777-1820), therefore the conversion to Christianity played a crucial role in providing a new source of *mana*, a stronger power to defeat the opposing chiefs (Campbell 2001). Between 1845 and 1875 the chief Taufa'ahau unified the islands, sustained by the 33 chiefs who submitted to his power and changed their title in *nopele* (from the English "nobles"), once he was crowned as George Tupou I in 1875.

gan male above the age of sixteen is still today entitled to two lots: one for housing ('api kolo) and one for farming ('api 'uta). These two are not only distinct topographically, being the first within the village and the latter in the bush, but also in terms of ecological function and work responsibility. If the 'api kolo is the home site were only ornamental, medicinal, fruit plants and flowers are gardened, the 'api 'uta is cultivated with different varieties of root crops, coconut trees and kava, the basic staples on which both the local diet and the social system is based on.

Such spatial separation is crucial because it highlights three critical aspects. Firstly, that gardening and farming are two different activities and are not superimposable. Secondly, that the land has separate agricultural destinations and food provisioning in relation to its position and use. Lastly, that such destinations are linked to the local food value system within a bio-cultural and symbolic frame, meeting dietary needs, social expectations and gendered areas of labor. This last aspect is crucial, since both farming and gardening are male practices, and this is exemplified by the term "farmer" (tangata ngoue) where tangata means man. Men indeed move between the 'api kolo and the 'api 'uta, manipulating the different plants gardened and farmed, while women make use of them in a second moment: to cook, prepare medicines and create that vast series of objects of value (koloa) which guarantee the social relationships' stability. Such labor division can be clearly summarized with Helen Morton's words:

boys go and girls stay, boys and men are responsible for work in areas that are considered "outside" – the bush, the open sea and outside the house- whereas girls and women are responsible for chores "inside", in the sense of being done at home or in the village, the town or the sea area within the reef. There is a special spatial configuration of "in" and "out" (1996, p. 5).

Female activities are indeed strictly connected to the house-sitting-down *nimame'a*, or fine arts, which literally means "expert hands", namely those very important activities in the *koloa* preparation: the gift exchange process (and therefore in the social relationships stability).

This topographic perception of "in" and "out", which marks the labor spaces of pertinence and distinguishes male and female activities, refers to an organization of the space by concentric circles³. As underlined by Ha'uofa, both the conceptions of space and time in Tonga, and more generally in Oceania, are circular because in continuity with nature: the cyclical appearance of certain birds, flowers, moon phases, winds and meteorological phenomena (Hau'ofa 1994). Similarly, the perception of time recalls such

³ See figure 1 which portrays the land division before the Constitution abolished the former land tenure system.

cyclic nature (Bennardo 2002): the past sits in front whereas the future in the back, as to say that having the past in front allows to foresee what will come, based on what has already happened. In sum, in Oceania space and time (ta and va) and social organization are clearly very tied and in Tonga circularity marks the spaces of social life and the division of roles.

Hence, since in the cultivated staples "precipitate" all these wider meanings and gender distinctions, they embody an entire value system.

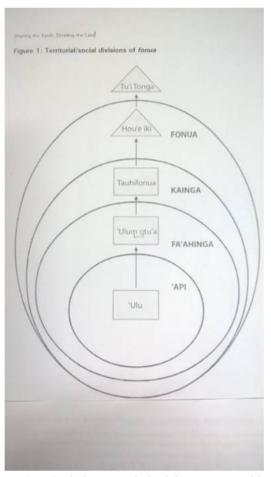


Figure 1 (Francis 2006: 354) which portrays the land division organized by concentric circles, officially effective until the Constitution abolished the former land tenure system. Unofficially such land division continues to organize and mark the male and female space of pertinence.

Food, body and land: a continuum

The bond between the social values of food, the bodily dimension and the land organization is well summarized by an interviewee who stated "carrying around a big body is like exposing a big pile of root crops". The body, like food, conveys meanings, and in this specific cultural setting the meanings connected to abundance mirror the importance of social status, power and resources' control. Former chiefs indeed distinguished themselves from the rest of the population also physically: bigger, softer and paler their bodies were visibly different from the commoners (the tu'a) (Besnier 2011). Their body talked back, marking symbolically their power, wealth, high social status, mana, health, strength and beauty. Therefore, if bigness was once a chiefly prerogative, a size and shape to aim to, with a greater access to resources people could actually start embodying it, up to a point where it is difficult to recognize a noble from a commoner. Women's big sizes, in particular, are legitimized by "having a higher social status" as "mana carriers". On the contrary, "being skinny is a sign of poverty, it means not having enough food or that "nobody has taken care of you".

Furthermore, in the Tongan world there is a *continuum* and an interaction between the environment and the human world, to a point where there is no term to indicate "nature" in the local language. From an emic perspective, argues Philippe Descola (2001), nature is not a bare matter detached from the symbolic interaction with the human world, and the Oceanian perception of nature proves it: between living beings there are just ontological degrees of difference, along a continuum of formal and behavioral characteristics. In other words, these populations

do not separate the universe of culture, which would be an exclusive prerogative of human beings, from the universe of nature, which includes all the remaining entities of the world (Descola as cited in Gnerre, Cuturi 2014, p.127).

Differently from the western perspective, nature and culture mingle and blur⁴. Far from being ante-litteram ecologists (Kirsh 2008; Gaspar, Bambridge 2008), the indigenous populations of Tonga are rather one with the environment. Therefore, the relationship between bodies, land and food is porous, in continuous dialogue and adjustment.

Margaret Lock has argued that every singular bodily experience is mutually constituted by biology and culture (1993). Namely, in the dialogue between biology and culture (where social obligations mark every existence)

⁴ On the recent debate around nature and culture see Descola 2005; Latour 2010; Sahlins 2014

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there is no space for a strong individual perception of the self, rather a continuum between the natural and human world and the self and the community. A collective and "interpersonal" perception of self (Becker 1995) seems therefore tuned with such ecological continuity frame. There is a reciprocal feedback: a "cultural and personal effort of manipulating body size" as "part of a dialogue between biology and culture" (Ritenbaugh 1991, p. 179). In the Tongan "local biology" (Lock 1993) a land richly cultivated with yams, a big pile of taros and a large body, are part of the same value system.

This dialogue and continuity between biology and culture is also manifest in the embodiment process occurring after marriage. Young girls and boys in Tonga are slender, but after marriage both males and females are expected to embody their new social status by gaining weight. "It's normal to gain weight when you marry" stated an interlocutor of mine; "all mothers are big" echoed another, and

you know, if you don't [gain weight] people will think you are selfish. I know this girl who got married and she stayed the same even after the two kids and my mom and my aunties think she's selfish, that she cares more about herself than her kids.

Therefore a woman who "keeps herself" is stigmatized: she can be accused of being selfish, namely to perceive herself as a singular entity. As a result, this collective perception of the self, embodying values like the lands' products do, influences extensively the resources' cultivation, distribution and agricultural choices.

On these matters, the first available written sources -the diaries of Captain Cook and his crew and William Mariner- which date back to the XVIII century, provide us a very detailed historical background before the 1875 Constitution⁵.

The farming system of the time is described as a "plantation" system:

The *plantations* were fenced all around and constituted a 'road system', namely a set of trails, the shortest of which were crossed by longer ones every fourth of a mile or so, in order to divide the plantations. The edges of the trails were formed of bamboo fences thick as a pinkie and 3 meters tall, built with great accuracy and ability (Mariner 2009, p.79).

Distinct and far from the plantation area, the space around the house was a garden: "in the area facing the houses ornamental trees and shrubs are planted, whose fragrance scents the air they breathe" (Cook in Beaglehole

⁵ Before the Unification of the Kingdom under the Tupou dinasty, in 1875, lands where organized in chiefdoms: wide land and sea portions, often including many islands, were under the control of a complex political system at the top of which ruled a chief.

1994, p. 227).

As argued elsewhere (Cottino 2017), what clearly emerges from the written records is a high degree of anthropization of the land:

I am of the opinion that all the islands' land, and in particular Tonga-tabu, is private land and that among the indigenous population there are servants and slaves, who don't own anything. Even supposing that everything could be in common in a country so well farmed as this one is absurd. [...] Gentleman De Bouganville is significantly wrong when he states that they pick fruits from the first tree they find or that they freely collect food from the first house they happen to enter into [..] Indeed is absurd to suppose that everything is common in a country where almost every staple is produced through farming. It is true that some things require less work but many others require much of it: for example root crops of any kind and bananas don't grow wild, but only if cultivated (Cook in Beaglehole 1994, p 231).

Indeed, intercropping and multi-cropping were the norm, as Cook attests:

It looks like we landed in one of the most fertile European flatlands. There was not an inch of uncultivated land; roads didn't take more space than strictly necessary; every fence didn't take more than 4 inches of land and even those 4 inches weren't completely wasted since within many fences grew fruit and paper mulberry trees, which served also as a support (Cook in Beaglehole 1994, p. 215).

Despite the sense of order and organization such written descriptions infuse, captain Cook describes the land distribution and agricultural destinations as a "fascinating chaos":

The edge of this island is cultivated with plantations, the more inner parts instead are way less cultivated, even if very suitable for farming. Along the coast we could see small woods of coconut trees and other trees, beautiful grasslands and, here and there, plantations and trails leading everywhere on the island, in a very fascinating chaos which makes even more picturesque the islands' panorama (Cook in Beaglehole 1994, p. 223).

Probably, argues Randy Thaman, such perception of "chaos" marks the cultural gap between the western agro-ecological organization of the space and the indigenous one, where the porosity and continuum between worlds would display also in the environment (Thaman, Clarke 1997). Lands, indeed, looked like what Annie Walker has described as "expiring gardens" (1994), namely plots seasonally returning to be secondary forest. Commonly practiced all across Oceania, with Melanesian roots, this system is a sophisticated interconnected green factory, with a high degree of ecolog-

ical stability, and requires the concomitant co-existence of different root crops, trees and shrubs, which reciprocally sustained each other in terms of nutrients, defense from pests and climate threats. Such integration -and *continuum* we could argue again- of forest and agriculture was later named "agroforestry" (Thaman, Clarke 1997, p. 131). As Thaman argues, the Tongan traditional agricultural system never reached the inherent limits of the food production because it was not planned for the immediate satisfaction, but rather for facing scarcity in case of extreme climate events.

The 1875 Constitution abolished the key professional figures presiding over the land organization, agricultural destinations, resources distribution and seasonal tapu – the tauhifonua – and therefore played a crucial role in breaking down into small units an interconnected system where a collective vision was necessary.

As a result, the main consequence of the Constitution for the relationship between the people and the land has been that starting a rather more private (within the family network) decision process regarding the agricultural destination of the plot. Therefore, when the government gave out incentives to plant specific crops, these tended to be accepted by new free citizens-farmers. Since the early 20th century waves of monocrop cultivations were encouraged for commercial farming. To begin with, rootcrops with no social value, as cassava (manioke) and a type of American taro (xantosoma esculenta). In the forties, the Tongan government embraced the Green revolution, intensifying the cropping and the monoculture pattern. Receiving once again incentives from the government, Tongans converted their fields first to bananas and watermelons (1945-1985), then squash (1987-2007), a ruinous economic decision because of the impossibility to compete in markets where the prices for farm products were already low. In order to practice such agriculture, lands were cleared of trees, central to the former agroforestry system, and both pesticides and fertilizers were extensively used.

Despite the preponderance of mono-cropping within farming activities, families have always kept some space in the bush plot for socially valuable staples, namely rootcrops, leaving terrains spatially, socially and ecologically different and not interchangeable. Certainly the past sixty years of intensive cultivations have left impoverished terrains and little trace of the agroforestry system. Nonetheless, in recent years the government has refused to continue adhering to this agricultural model.

While there is a shift in national agricultural development to include local knowledge⁶, international food security aid projects hinge on the assumption that nature is an object rather than part of a discursive interaction and that the land is a "white page" to fill in.

⁶ Personal communication of the Minister of agriculture and fisheries of the Kingdom

Contemporary alarms: from food security to food sovereignty

In the past ten years a couple of substantial alarms have reached the far Islands of the Pacific: firstly, the WHO announcement of an epidemic of obesity affecting the island's inhabitants; secondly the heavy impact of climate change on the local population's food security (UPCC).

The obesity alarm sees the Tongan archipelago ranking fifth, with 92% of the total female population and 86% of the male one obese (WHO, 2015). Interestingly enough, when reading these statistical data, the twelve most obese countries are mainly concentrated in Oceania, being the first nine Pacific Island States⁷. Rather than finding awkward such a geographical concentration of obese people and questioning the index used to calculate such figures, an obesity epidemic was declared with obvious economic consequences on a global scale, namely a great flow of money was allocated for diet and nutrition related projects.

WHO explains such epidemic with deep social and behavioral changes, modernization, economic growth, urbanization, globalization, a diet rich in complex carbohydrates, sugars and fats and automatic transportation (WHO, 2000). Nevertheless, in Tonga, similarly to Nauru, as Nancy Pollock has effectively debated,

using modernization as the theoretical hook for these epidemiological transition ideas does not clarify why diabetes appeared in the 1970s [..] if diabetes is a disease of modernization, and modernization is associated with urbanization, cash income and wage work and imported food, then why did Nauruans not developed diabetes in the 1920s and 1930s when they first experienced this lifestyle; why did it wait to manifest itself until the 1970s? (Pollock 1995, p.104).

Despite a natural and general anthropometrical growth of the population which has taken place worldwide, what seems to emerge from historical descriptions, paintings, photographs and figures painting a picture of the local cultural dynamism, bodies are generally not fatter than the past, but bigness is more widespread. So, what might have happened, rather than an obesity epidemic, is a democratization of big body sizes (Cottino 2013).

No confusion needs to be made between the glorification of bigness and fatness. The bigger is not the better in Tonga: there are very precise thresholds separating the appropriate bigness from the inappropriate fatness. In other words, there are different kinds of bigness, not all of which equal fatness. As an interviewee has effectively stated: "my mom has always told me that beauty is to be big and healthy, but the point is to define bigness.

⁷ In order they are: Nauru, Samoa, American Samoa, Cook Islands, Tonga, French Polynesia, Confederate States of Micronesia, Niue (WHO 2015).

You can be big and fat, big and firm, big and lean". This statement proves the necessity of contextual definitions. In this regard, my ethnography has revealed not only that the optimal size finds no correspondence into the socially appropriate body size range, but also that the first is set using an index, the Body Mass Index (BMI), that is simplifying the body anthropometry, which cannot be measured just by taking into consideration weight and height.

Actually, in Tonga, an obesity epidemic was declared a century later the manifestation mentioned by Pollock, right after the obesity condition was included within the American Center for Disease Control(CDC) list of pathologies. Nichter suggests that global health is rather a matter of power, therefore the creation of emergencies and epidemics seem to respond more to transnational agendas rather than national priorities (2008). Global heath, he argues, is a biopolitical agenda involving both the policies of an unnatural distribution of diseases and health resources, and the policies of transnational governments tied to the control of emerging diseases, bio-security and global health risks (Nichter 2008).

A more recent alarm regarding the lands of Oceania is related to the consequences of climate change on the local food system. Salinization of the ground waters, rising sea levels, acidification of the sea, intensification of extreme climate events such as cyclones during the wet season are all elements weakening the Tongan populations' food security. Quite conveniently to a global/universal set of solutions, international aid projects aim at assuring food security by financing and planning horticulture projects, although hardly ever the land is perceived as a meaningful space, around which customary law organizes society values and labor divisions. Because the Western perception of nature is rather that of a separate space, land is perceived as just being dirt.

As a result of these two alarms, the population of the Kingdom of Tonga appears to be nutritionally and ecologically vulnerable to the eyes of the aid economy. In addition, since women are not inheriting land titles they appear to be powerless to a Western eye-although as *mana* carriers they have a great deal of decision on land issues- and therefore in need of empowerment. Bodies and land are then addressed as the main objects of aid planning, whose narrative attributes to "modernity" the sizing up of the first, and the pollution of the latter, implying that change had never occurred before the Western influence. Hence, the planning effort revolves mainly around food security, never mentioning food sovereignty as key to overcome such vulnerability, probably because, as Hannah Wittman argues, food sovereignty is "a critical alternative to the concept of food security" (2011, p. 87).

By challenging the "conventional wisdom and policy on how to best 'feed the world and cool the planet'" (Wittman 2011, p. 89), food sovereignty

is "the right of local peoples to control their own food systems, including markets, ecological resources, food cultures and production modes" (2011, p. 87). Wittman's critique of the food security paradigm -and therefore of the aid policies framed around it- is that it "treats food as a problem of insufficient trade rather than hunger, privileging *access to* food rather than *control over* systems of production and consumption" (2011, p. 91). What food security ignores, she argues, are "the structural problems of agricultural development, food production and consumption within the world economic system" (2011, p. 92), rather focusing on the individual human right to food.

Wittman proposes, then, a new concept, that of agrarian citizenship (2011), which "acknowledges the diverse voices of human actors within the food system, but also considers how these voices and practices interact with nature's voice (such as changing weather patterns and as a result of climate change) as a 'lively' actor" (2001, p. 93). In such a view, a Tongan agrarian citizenship would incorporate "livelihood provision, conservation of biodiversity, ecosystem function and community wellbeing" (2011, p. 95). To say it in other words, a food sovereignty paradigm would provide to the local population "a higher productivity and resilience to ecological vulnerability and climate change" (Wittman 2011, p. 95) which are the main declared reasons for the current aid economy policies in the Kingdom.

The following section will describe one of the projects lacking attention to food social values, topographic ecological division of space and the relative social topography of labor division.

Engendered gardening projects: unpacking the nexus of gender and nature

In an effort to contribute to food security against the impact of climate change, improving the nutrition patterns of the population and empowering women, the aid project I will here illustrate promotes "urban horticulture", through the universal concepts of resilience and sustainability. Indeed, projects seem to encourage the population to glean from the "pre-modern" past agricultural practices and knowledge presuming the entire population, and specifically women, were committed to farming. As UNDP states, the "muted voice" of women are paired with climate change:

gender inequalities intersect with climate risks and vulnerabilities. Women's historic disadvantages—their limited access to resources, restricted rights, and a muted voice in shaping decisions—make them highly vulnerable to climate change [..]which is likely to magnify existing patterns of gender disadvantage (2011, p. 6).

The international aid approach is overtly based on exploring "ways to overcome the major land tenure constraints to growth in the region", as written in the Australian Government White Paper (Bolton 2015, p. 146). Undeniably, a significant body of international economic thinking, argues Bolton, believes that development cannot intersect with customary land tenure, but rather it has to bypass it (Bolton 2015). Moreover, the South Pacific Forum Secretariat reports "difficulties in fitting traditional land tenure patterns into the modern economy" (as cited in Bolton 2015, p. 147). In this perspective the project here illustrated, funded by Australian Aid, carried out by the NGO TongaHealth in a joint venture with the private company Nishi trading - which holds the biggest plant nursery on the main island of TongaTapu - promotes horticulture projects in the house garden within the village rather than in the agriculture plot of land. Thus, women are encouraged to plant within the 'api kolo, the house plot, five different vegetable seedlings (out of the choice of carrots, onions, capsicum, eggplants, tomatoes, green beans, cucumbers). Seedlings are funded and distributed to women only for four rounds in the hope of triggering an independent production cycle, able to both feed the family -providing food security, food accessibility and healthy eating- and allow cash income with the selling of the surplus.

By exerting political power on both male and female bodies, such project rests on a double assumption: in the first place that of the female indigenous islanders as former gardeners; secondly that of the female indigenous islanders as former gardeners on the Western vegetable garden model. However, such erroneous assumptions make the design of the projects inefficient and ineffective in regards to its final goals.

In the first place, making "surplus" is very difficult in a network of social relationships where goods are shared and offered to the collectivity because of social obligations: "I do not sell anything, I keep it for the family to share with the *kainga* [extended family]" stated an interviewee. Therefore, the horticulture cycle seems to end after the fourth round because there is no extra money to buy the new seedlings. Even one NGO professional admitted:

we tell them to alternate one row for family consumption and one for selling, but the one for selling is usually offered to the *faifekau* [priest] or exchanged for other food, hardly ever sold.

Secondly, as already mentioned, the 'api kolo is where usually fruit trees, medicinal plants and ornamental plants are gardened, therefore horticulture is encouraged in a space traditionally not organized for food provisioning and of male pertinence.

Thirdly, the distributed seedlings are Western vegetables with specific characteristics not matching three interconnected requirements of food: big dimensions, high level of filling and social value (Cottino 2013). In a context of glorification of the abundance, both physical and social, small vegetables are not valued: "we grow big things, Chinese grow small ones!" argued an interlocutor of mine.

Furthermore, most of the women I questioned did not perceive the vegetable garden as providing for the family, neither did men who are still in charge of providing me' a kai, the filling food: the root crops. "Men are interested only in rootcrops" stated an interviewee, on the one side stressing the value of tubers and, on the other, justifying the indifference of men for the horticulture projects, very distant from their priorities. Women, who are not considered the food providers, accepted to cultivate these Western vegetables in their backyards integrating them within the gift circuits but they all stressed their absence of social value: "do you think I can show up to a wedding with a basket of carrots?!". More in general, according to my interlocutors, families did not change their diet through the introduction of such vegetables, they would use lettuce "as an ornament and add the remaining ones to the family soups "to make volume". Indeed, the local diet has its own greens, as a type of edible hibiscus leaf, pele which is a sort of spinach, taro leaves, and others, which are rather preferred to the Western ones, considered less tasty.

Lastly, and more theoretically, there seems to be a linguistic confusion between gardening and horticulture. The two activities are very different from one another. Nevertheless, under the idea that a garden must be a place where horticulture rather than gardening is practiced-as a result of both a stereotype of the female indigenous population as former horticulturist and a very contemporary trend of urban/terrace/backyard gardening in the West-these projects juxtapose the two. In the Tongan context horticulture is not a current activity. Agriculture and gardening are the main land activities, both mostly practiced by men.

The alternative food paradigm proposed by Wittman, namely that of food sovereignty, could therefore have a "generative potential [..] that places the multiple dimensions of food -as final product, intermediary, ingredient, nutrient, cultural performance, social relation, human necessity- into a wider recasting of what it means to be human, changing human biophysical exchange and value creation" (2011, p. 89).

Conclusions

In conclusion, the continuity and porosity between human beings and nature in Tonga has flexibly adjusted in time, changing the bodyscape, the

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land system and the foodscape, balancing the community equilibrium and the gender roles. Bodies, land and food are at the center of the recent interest of the aid economy, concerned for the high rates of obesity and for the consequences of climate change, and aims at creating food security, food access to healthy food and resilience for these vulnerable populations of Oceania.

However, these projects treat the land as a *terra nullius*, with no history nor embedded meanings and practices; the staples as equivalent and interchangeable, not acknowledging the local social values of food; and the bodies as universal, forgetting the local biology. Furthermore, these policies hinge on two incorrect assumptions: the nexus between the feminine world and western style horticulture and the ontological separation between humans and nature.

In doing so, they promote an engendered and standardized agenda, which at the moment is perceived as harmless but might alter the gender equilibrium in the long run. Such policies seem therefore to respond more to a global agenda than to local needs, strengthening the position of the agencies into the global arena but weakening the population agency within their eating and farming choices. A new agro-ecological paradigm, which guarantees the population's right to food sovereignty, is very needed for the Tongan population wellbeing.

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