

Critical Approaches to Superfoods

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Critical Approaches to Superfoods

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Amaranth's "Rediscovery" in Mexico: A Path Toward Decolonization of Food?

Florence Bétrisey and Valérie Boisvert

In the early 2010s, online media began to hail a "new and highly nutritious crop" as a superfood (Bruce 2014). Some articles described amaranth as "the next quinoa" and projected that it was about to "join quinoa, chia seeds and goji berries in the pantheon of ancient 'superfoods' enjoying a much-deserved resurgence" (Maisto 2011). According to enthusiastic and widely quoted reports from journalists, the ancient crop would make a comeback in its native Mexico (Howard 2013), thanks to the pioneering initiatives of American volunteers in support of local NGOs (Matsumoto 2017; Slow Food 2007). International NGOs, development organizations, and Mexican and international media outlets alike gave glowing accounts of the role that amaranth would play in the fight against malnutrition and obesity along with the revival of Aztec culinary traditions lost during colonization. This constellation of institutional actors has gradually crafted and deployed a narrative about amaranth over the last decade, describing what it will achieve once widely grown and consumed, and summoning desirable futures with political, material, and ontological implications in the present. This recent "rediscovery" deserves all the more attention as it reflects a radical and to a large extent unstated shift in the representation of amaranth.

Grain amaranths are pseudo-cereals belonging to the genus *Amaranthus* L. of the family *Amaranthaceae*, which encompasses about seventy species (Mapes Sanchez and Basurto Peña 2016).¹ Wherever amaranth is grown, it seems to be associated with "non- or second-class citizens," such as slaves and black communities in Jamaica and economic migrants in Malaysia (De Shield 2015, 6). Some of the species are native to the Americas, where amaranth was a significant crop for many pre-Columbian societies (Das 2012). Like quinoa in the Andes (see McDonnell, this volume), amaranth is pejoratively considered

as an *comida de indios* in contemporary Mexico (Velasco Lozano 2017) and has long been marginalized under neocolonial mentalities. The reimagining of amaranth as a “superfood” raises a number of critical questions about the politics of discovery narratives and their role in culinary revalorization projects. Beyond the seemingly simple story line, what does the rediscovery of amaranth in Mexico stand for? What exactly is being rediscovered, by whom, and for whom? What are the stakes? Drawing on discourse analysis (Hajer 2006) and the sociology of expectations (Borup et al. 2006; Joly 2013), this chapter aims to unpack the discourse surrounding amaranth’s rediscovery in Mexico. We offer a critical examination of its possible contribution to a process of decolonization of food and diet, in the sense of Peña et al. (2017).

Hajer’s argumentative discourse analysis aims at highlighting how discourses “shape one’s view of the world and reality” (Hajer and Versteeg 2005, 176) and influence laws and institution building. The notion of *framing*, understood as a discursive process whereby political actors “aim to create necessities for (specific) policy intervention” through argumentation (Leipold and Winkel 2016, 36), is used to unpack the embeddedness of discourse in practices and politics (Hajer and Versteeg 2005). Through framing, actors create *story lines* which are “condensed statement[s] summarizing complex narratives, used by people as ‘short hand’ in discussions” (Hajer 2006, 69). These story lines both empower some actors and entail discursive *delegitimation* and exclusion of others by, for example, not referring to them (Leipold and Winkel 2016).

The framing of amaranth’s rediscovery shares a particular kind of narrative based on promises about the plant and its ability to solve urgent development and health problems. The analysis of promissory narratives developed in the sociology of expectations (Borup et al. 2006; Brown and Michael 2003; Joly 2013) has proven a fruitful approach to the study of techno-scientific innovations, their legitimation, and their dissemination. For instance, Pierre-Benoit Joly (2013) identified a number of stylized facts related to the diffusion of biotechnologies: the formulation of a promise to solve a general and urgent problem (world hunger, environmental crisis), made credible by scientific studies and the personal commitment of scientists, and supported by some success stories that everyone is referring to. Paradoxically, radical opposition to the promise makes it more plausible. The promise gradually becomes an “obligatory passage point” (Akrich et al. 2006), building collective commitment, mutually binding obligations, and agendas for action. Working on cultured meat, Sexton et al. (2019) convincingly showed how “promissory narratives”

were effective in promoting new technologies. Taking the notion beyond the field of technology, Foyer et al. (2017) have explored the way promises could also explain the consensus around market-based instruments for biodiversity conservation. We consider the rediscovery of amaranth in Mexico and its consecration as superfood as a promissory narrative to critically examine how it frames the political and moral economy of the plant and singles out some facts and actors while silencing others.

Context

In Mesoamerica, amaranths are estimated to have been domesticated as early as 5000 BC (Das 2012, 274). However, the transition from wild harvest to agriculture occurred gradually and plant geneticists debate the precise moment of domestication (McClung de Tapia 2016). This exemplifies the fact that distinctions between wild and domesticated plants are often blurry and are in any case socially constructed. In Mexico, some farmers would not actively sow amaranths but would welcome wild amaranth plants in or around fields, even watering them and letting them go to seed to ensure their reproduction (Mapes Sanchez and Basurto Peña 2016).

According to anthropologists Esther Katz and Elena Lazos, Mexico has retained more Amerindian traditions related to food than other countries in Latin America (Katz and Lazos 2017, 20). They argue that this might be due to the existence of a "refined court cuisine" (Katz and Lazos 2017, 22) within the Aztec empire that has been partly adopted by Spanish viceroyalty. After independence in 1821, the "invention of national cuisine" appeared as an important "political project for the new nation" (Katz and Lazos 2017, 22). The 1910 Revolution, by "enhancing the glorification of the indigenous roots of the country" (Katz and Lazos 2017, 22), contributed to the valuing of the numerous dishes that belonged to an indigenous heritage. Mexican food has also suffered from "modernization" projects which have translated into industrialization of so-called "traditional" food like tortillas, the development of a fast-food industry (Pilcher 2012), and the further marginalization of indigenous foodways. Lately, the declaration of traditional Mexican cuisine as intangible heritage by UNESCO in 2010 is said to have generated "tremendous enthusiasm among chefs, entrepreneurs, government institutions and communities, eager to promote both Mexican gastronomical traditions and innovations" (Katz and Lazos 2017, 22).

Amaranth figures as one of these indigenous foods increasingly promoted among Mexican consumers. Pre-Aztec indigenous communities in Central America domesticated two species of amaranth (*Amaranthus cruentus* and *Amaranthus hypocondriacus*) (McClung de Tapia 2016) for grain consumption, while they were gathering wild species of amaranth (*A. hybridus*) for their leaves (Katz and Lazos 2017). Under the Aztec regime, grain amaranth was both a staple and a ritual food, used as tribute like maize (Velasco Lozano 2016). Grain amaranth was ground into flour or toasted and mixed with maize and honey to form figurines eaten during ceremonials (Katz and Lazos 2017). The making of such figurines was prohibited by Spaniards but the crop itself was never banned (Velasco Lozano 2016). Amaranth cultivation is then reported to have gradually declined since the seventeenth century, without completely disappearing (Katz and Lazos 2017). Indeed, it is still consumed in the form of *alegrias*, sweet bars made of popped amaranth and honey, which are a popular street food in Mexico today (McClung de Tapia 2016).

Nowadays, “health-conscious people of the urban intellectual middle class” (Katz and Lazos 2017, 28) consume popped amaranth in their breakfast cereals and consider it as a “health food” (Katz and Lazos 2017, 28). According to Rojas-Rivas et al. (2019), amaranth has even become a marker of social distinction. Mexican amaranth is increasingly exported, mostly to the United States (Katz and Lazos 2017). Amaranth from Tulyehualco has recently been declared “intangible cultural heritage of the city of Mexico” (Velasco Lozano 2017). Scholars, however, consider that amaranth “has not regained its place as a staple and strategic crop” (Espitia Rangel 2016, 66) and hypothesize that hidden power relations may explain why amaranth is “escaping the poorest who need [it] more” (Katz and Lazos 2017, 43).

By analyzing the framing of this “rediscovery” of amaranth in media and in national/international organizations’ discourse, we aim at better understanding how power relationships and economic interest crystallize to achieve this elite capture of amaranth as a “superfood.”

Methods

We collected our corpus of texts by searching Google for the following keywords: *amaranth rediscovery Mexico*, *amaranth revival Mexico*, *amaranto redescubrimiento Mexico*, *amaranto Mexico*. We then selected texts based on our judgment. We ended up with a corpus of twenty-six texts, ranging from

2007 to 2018 and including twelve international media outlets, seven scientific papers (agricultural science, food science [3], biotechnology, health science, anthropology), three Mexican media outlets, and four documents issued by international non- and inter-governmental organizations.

A plant can only be rediscovered if it was first *discovered*, then somehow faded into oblivion before becoming again the focus of attention. Rediscovery narratives involve summoning the past and giving a subjective and political account of initial discovery and oblivion phases. Accordingly, we coded these three episodes of the "rediscovery" story lines and identified for each the objects at stake (what is discovered/forgotten/revived), the narrative characters (heroes, villains, victims), and their motivations. In a second step, we identified different "promises" at work across different framings of the "problems" in Mexico. Finally, we coded the actors in the rediscovery story line, according to the legitimacy and importance attributed or denied to them (farmers, NGOs, commercial actors, scientists).

Rediscovering What?

The term "superfood" does not correspond to any established scientific or legal category (Loyer and Knight 2018). It could be more accurately described as a "marketing term" (Schiemer et al. 2018) and a "discursive device" (Loyer and Knight 2018, 450) designed to invoke superhero representations and suggest extraordinary powers. Consequently, the qualities or "desirable traits" (Cernansky 2015, 146) highlighted as characteristic of superfood are quite variable. They do not result from a mere comprehensive scientific assessment but follow agricultural and nutritional trends, which in turn are influenced by the broader political context (Kimura 2013). The qualities attributed to amaranth thus reflect the valued features and guiding principles that prevail in this context.

We identified a first set of key features described in terms of presence and absence. This includes the fact that amaranth is "gluten free," which has become a major asset (appearing in twenty-three publications), that it contains "vitamins" (appearing in twenty publications), notably "folic acid" (appearing in eleven publications), and important "amino acids" (appearing in eighteen publications). Significantly, nineteen publications cite at least two of these nutritional qualities together. This suggests that amaranth is considered a "superfood," a "super grain," or a "wonder food" (appearing in

nine publications) because of that very combination of nutritional qualities. This is consistent with the analysis of McDonnell (2015) on quinoa. In the past, malnutrition was defined as a deficiency of specific nutrients (protein or vitamin A), which justified adding them to foods through biofortification, but a nutritional paradigm shift has brought about a change in this regard. The “hidden hunger” discourse points to the lack of nutrient diversity as the major cause of malnutrition. Emphasis is therefore placed on the need for several nutrients (Kimura 2013).

In addition to being a superfood, amaranth is also portrayed as a “super crop” with outstanding agronomic properties, such as the ability to grow easily (appearing in fifteen publications), even in harsh environments. Other qualities include its “adaptability” or agronomic fitness due to its genetic plasticity (appearing in three publications). The “resistance” and “resilience” of amaranth are also mentioned, literally as well as in a broader, metaphorical sense, legitimating the superfood label (appearing in four publications each). As McDonnell (2015) has shown for quinoa, it is the combination of the nutritional and agronomic values of amaranth that makes it not only a “miracle food” but also a miracle crop and allows hyperbole. The term “supercrop” appears in three documents.

Amaranth is also presented as culturally entrenched, “ancient” (appearing in eight publications), “traditional” (appearing in five publications), or “indigenous” (appearing in four publications). The history of the plant is inextricably linked to the fate of ancient civilizations, which gives it a mythical dimension. Five publications refer to the Maya, five to the Inca, while four publications allude to “pre-Columbian” indigenous groups. Most of them refer to the Aztec (nineteen publications). Six publications cite amaranth’s vernacular name in Nahuatl (*huautli*) and three its name in Quechua. The stories referring to the Aztec mention the use of amaranth in diet, as a tribute, and mostly in religious rituals. More specifically, they refer to the supposed custom of mixing amaranth with sacrificial blood to form figurines, which were then ingested during ceremonies. This narrative style is reminiscent of the storytelling marketing technique (Salmon 2010):

It was a favorite food of Huitzilopochtli, the hummingbird-visaged God of War who, legend had it, led the Aztecs out of the country’s northern wastelands to become lords of central Mexico. Amaranth flowers are bright and sweet; hummingbirds love them. Huitzilopochtli, like all the gods of old Mexico, also loved the taste of human blood. A regular diet of sacrifices sustained him and kept the world from falling into darkness.

(Elbein 2013)

Such narratives conjure up visions of an idealized past, an age of sensational sacrificial bloodshed and sacred violence, both frightening and appealing.

Guthman (this volume) also shows how "a really good story behind it" is key to the success of superfood. When applied to "exotic" (Huwylar 2016) or "ethnic" (Calderon 2017) superfoods, these stories specifically "appeal to exoticism and nativism coupled with claims of superfood status" (Drew et al. 2017, 266), a combination that Loyer and Knight (2018, 450) call the "nutritional primitivism" discourse, understood as "the promotion of ancient or indigenous foodways as a path to health" and based on the "fetishiz[ation] of the (food) culture of ancient or indigenous peoples" (Loyer and Knight 2018, 456). Combined with references to nutrition science, this discourse serves "to doubly verify superfoods' healthfulness" (Loyer and Knight 2018, 456). This endorsement by modern science backed by tradition appears in some of the names used for amaranth such as "the Aztec super crop" or "ancient superfood" (Bruce 2014; Maisto 2011).

The story of the rediscovery of amaranth as superfood thus contributes to a fetishization of ancient civilizations through a reification of cultural qualities. Otherwise, this narrative reduces amaranth to its modern nutritional and agronomic qualities, considering it as a set of useful nutrients (see Spackman, this volume, on extractionist logics) and desirable traits that make it an adaptable panacea. It supports the rediscovery thesis in conveying the notion of an improved traditional crop and paves the way for promoting amaranth cultivation around the world, a project similar to what is being promoted for quinoa (Bazile et al. 2016; see McDonell, this volume). This grand gest of amaranth's rediscovery is organized in three movements—its discovery, oblivion, and rediscovery—which we called the three moments of the rediscovery.

The Three Moments of Rediscovery

The "discovery" of amaranth is poorly described and framed (for instance, the word *discovery* does not appear in the corpus). Among some sources, it can still be equated with the first domestication of the plant and its use in diet and rituals. However, while archaeologists have found traces of cultivation of amaranth dating back to 5000 BC in Mexico (Russell 2015), well before the rise of the Mayan and Aztec empires, references to pre-Aztec/pre-Mayan Mesoamerican groups are almost nonexistent in media discourses. Other sources seem to equate the discovery of amaranth with the colonial encounter and the first written descriptions of the plant and its cultural relevance: "when the Spanish

arrived in Mexico they recognized the significance of amaranth to the indigenous population” (Bruce 2014). Overall, the discovery phase (and both its objects and actors) remains unclear and almost unframed.

On the contrary, the oblivion phase is well documented by concordant sources. Amaranth is reported to have “faded into obscurity” (The Lexicon n.d.), to have been “forgotten” (Zins 2016), and to have gone “into the history books” (Eaton 2013), leading to an “almost total disappearance” (Slow Food 2007). The colonial eradication of amaranth is held responsible for this loss. Stories of banning amaranth and tales of amaranth growers whose hands were cut off or who were sentenced to death, and of a “religious purge of amaranth” (Elbein 2013) due to its use in Aztec religious rituals, circulate in the majority of the sources. Although the Spaniards most likely “disdained” amaranth consumption (Katz and Lazos 2017, 20) and prohibited the making of offering figurines, there is no historical evidence of this ban and following punishments (Early 1992; Velasco Lozano 2016). Yet there is no narrative without intrigue and tensions. These additions give dramatic intensity to the story and make it more compelling. Mentions of guilt, blame, and a forbidden crop spice up the narrative. They also allow readers to posit the current rediscovery of amaranth as reparation for historical injustice and to turn it into an ethical undertaking.

Finally, rediscovery per se is described as an ongoing process, produced by a constellation of actors and interests. First, “modern research” (Milner 2015) is portrayed as having played a critical role. Amaranth was already called the “crop of the future” on account of its “outstanding agronomic traits” in the context of agronomic research conducted by the Rodale Research Centre and the US National Academy of Science in the 1970s.² Another US National Academy of Science report, entitled “Amaranth: Modern Prospects for an Ancient Crop” and released in 1985, and NASA’s introduction of amaranth into astronaut diets have been important milestones in the history of rediscovery. Another major contribution to the rediscovery of amaranth put forward is that of economic actors: “pioneer” (Balderas 2018) micro-businesses began to transform amaranth in the 2000s and Kellogg’s began including amaranth in its cereal bars in 2010. Mexican NGOs have been instrumental in the revival of amaranth by “rescuing” (López-García 2008), “re-introducing” (Bruce 2014), “reviving” (Eaton 2013; Matsumoto 2017; Slow Food 2007) the crop, by “pushing an amaranth comeback” (Matsumoto 2017), and by encouraging local farmers to grow amaranth. This is the core of amaranth storytelling. The Mexican rediscovery of amaranth is abundantly reported in the press

through interviews with NGO representatives, lively and colorful accounts of workshops and various activities, and pictures. We found that three Mexican NGO projects promoting amaranth were showcased as success stories featured in almost every article on the subject and offered as a practical demonstration of amaranth revival.³

This framing of amaranth's rediscovery legitimizes and prescribes courses of actions. The first action, mostly undertaken by NGOs, consists in "convincing" (Howard 2013) and "teaching" (The Lexicon n.d.) farmers to grow and consumers to eat amaranth through workshops, campaigns, and cookbooks. Further measures concern the insertion of amaranth into formal breeding programs, which involves wild crop and farmers' varieties germplasm acquisition and the establishment of *ex-situ* collections to develop new varieties through novel breeding techniques. Finally, the rediscovery narrative supports the completion of amaranth commodification by creating and developing formal markets, following "new market trends" (López-García 2008), and "developing marketable varieties" (Eaton 2013). These courses of actions are in line with the framing of obstacles to the achievement of amaranth promises, namely lack of awareness of the nutritional properties of amaranth, lack of interest from "huge companies" and problems of commercialization, and lack of support from government.

Rediscovery by Whom and for Whom?

Scientists, food companies, and NGOs are imagined to play a pivotal role in the revitalization and modernization of amaranth, which legitimizes and empowers them to carry on their efforts. As previously noted, we found that three Mexican NGOs are repeatedly mentioned as key actors in the rediscovery process. The latter are supported by intergovernmental organizations (e.g., International Fund for Agricultural Development, IFAD) and larger NGOs (e.g., Slowfood International) or private actors (Kellogg's Corporation).

Perhaps more surprisingly, amaranth itself is described as having contributed and collaborated in efforts for its rediscovery, together with farmers who resowed it and with the patronage of NGOs. The crop is personified, depicted as an "orphan" (Kilpatrick 2015), the victim of oblivion and marginalization but is also framed positively as having "survived" (Elbein 2013; Howard 2013; Slow Food 2007), "resurfaced" (Vargas Guadarrama and del Valle Berrocal 2016), or

“managed to endure” (Milner 2015) in part by itself. Amaranth is therefore lauded for its “tenacity” (Milner 2015). This can be related to what researchers consider to be the incomplete domestication of amaranth, allowing it to propagate even without human assistance, like its wild relatives.

The part played by farmers in the rediscovery narratives is also decisive since they are ultimately responsible for sowing, planting, managing, and harvesting amaranth. In most accounts, farmers are imagined as the intended beneficiaries of the cultivation and commercialization of amaranth. However, they are discredited in two respects. On the one hand, they are sometimes charged with negligence or nonchalance and stigmatized for having “abandoned” (Eaton 2013) or “forgotten” (Elbein 2013) amaranth for lack of vision. To some extent, they are insidiously made responsible and lectured for changes that have been imposed on them. They are implicitly and somewhat condescendingly blamed for their inability to grasp the importance of their food-crop heritage and to conform to primitivist clichés in this regard. The abandonment of “traditional food” is the source of one of the biggest scourges in Mexico according to the rediscovery narrative framing (Eaton 2013), namely the “obesity epidemic” coupled with malnutrition (Howard 2013). The latter is related to a shift from “traditional-agriculture-based diet” (Kilpatrick 2015) to a heavy reliance on processed food “that lacks nutritious and diverse offerings” (The Lexicon n.d.). On the other hand, farmers are also presented as destitute and purposeless, victims of an “obesogenic and toxic environment” (Kilpatrick 2015), requiring the assistance and guidance of scientists, NGOs, and business actors for farming and cooking amaranth adequately and relearning tradition.

This representation of farmers as victims applies in particular to women. Children and pregnant women are framed as “at particular risk of malnutrition which can be severe and irreversible, perpetuating a cycle of poverty” (Bruce 2014). Women are the main targets of cooking classes and awareness raising on the nutritional and health benefits of amaranth in light of their role in household food management determined by local gendered norms. In addition, the high folic acid content of amaranth makes it particularly suitable for pregnant women to reduce birth defects, which are framed as one of the major health issues in Mexico. This focus on women is quite visible in the pictures illustrating papers and reports. Out of eleven pictures showing only women, four show women in (cooking) workshops, two in food stores, three show women processing or cooking amaranth, and one represents a woman carrying her child. By contrast, men are mostly shown working in the fields. This tends to reinforce social expectations aligning women with reproductive tasks. While some sources

promise that growing amaranth will "help impoverished women" (Eaton 2013) or "provide women with livelihoods" (The Lexicon n.d.), focusing on women's reproductive role in relation to their children or fetus might lead to their disempowerment and justify a "growing surveillance on maternal conduct and intrusion into women's bodies" (Kimura 2013, 32).

Rediscovery is thus framed as an ongoing process to be completed. This is where promises come into play and offer new discursive resources to complete the expansion of amaranth cultivation and consumption.

Promissory Narratives

Many of our sources mention at least one promise that the rediscovery of amaranth could help fulfill. The most common is that of "alleviating/fighting/tackling/combatting" hunger, malnutrition, and obesity. Many of these promises build on war metaphors to frame the resurgence of amaranth as a strategy against hunger and malnutrition: "this plant is uniquely positioned in the fight against malnutrition" (López-García 2008). Citing NGO staff members, a National Geographic article asserts that "bringing amaranth back into cultivation and consumption [will] help combat malnutrition" (Howard 2013). Following the classic structure of narratives (Adam 2005), amaranth promises have five components: initial situation, complication, reaction, resolution, and final solution. The path to solving the problem is dictated by the way the problem is framed. Since hidden hunger resulting from unbalanced diet has been framed as the main issue, and amaranth as a perfect combination of these valuable nutrients, how the resolution will take shape is self-evident. An author for *The Ecologist* asserts that "Oaxaca's rural communities survive on a very limited diet. This lack of diversity leads to deficiencies of amino acids and nutrients needed for growth, and can cause serious health problems" (Bruce 2014), while NGO Lexicon affirms that micronutrients present in amaranth⁴ "are an incredibly important asset to strengthen diets, and particularly to prevent and treat malnourishment" (The Lexicon n.d.), this time using medical language. Citing NGO Puente's executive director, Al Jazeera journalist Kate Kilpatrick states that amaranth "has a unique fit into this enormous food crisis and health care crisis in Mexico" (Kilpatrick 2015). The revival of amaranth is therefore put forward as the one and only way to ensure a future where hunger and obesity will be defeated.

Promises are developed in connection with all the exceptional powers recognized for amaranth that we have already identified. Growing amaranth is

presented as a path toward “adapting to” or “resisting” climate change, while as food it is deemed to have the power to “prevent” diseases (like cardiovascular diseases, birth defects, depression, or cancer). It could be used as well as an economic panacea to “reduce” or “address” poverty, “strengthen” regional economies, “improve” household food security and income, and “reduce” emigration. At last, as a relic of ancient civilizations, it would make it possible to “safeguard” traditions (Kilpatrick 2015), reactivate or reinvent cultural identities and social practices falling in disuse, revive biocultural heritage, including “native crops and cuisines” (Bruce 2014; Matsumoto 2017), and “promote” (agro)biodiversity. In this respect, amaranth is also recognized as conveying emancipatory power: “through reclaiming amaranth and traditional forms of cultivation and community organizing, rural communities are reclaiming their identity and sovereignty” (The Lexicon n.d.). Cultivating amaranth is expected to help farmers to “better connect to their roots” (Howard 2013) and to foster a “recovery of the traditional knowledge” (Slow Food 2007).

Most narratives of amaranth’s deployment are not structured around a single promise but around bundles of promises, articulated by broad coalitions including food scientists (Venskutonis and Kraujalis 2013), NGOs (The Lexicon n.d.), and the media (Kilpatrick 2015). Various promises are piling up, thereby contributing to make the revival of amaranth cultivation and consumption an “obligatory passage point” (Akrich et al. 2006) to achieving desirable futures, just, prosperous, and climate resilient, free from hunger, obesity, disease, poverty, and deprivation. This echoes the findings of Rao and Huggins (2017) on biofortified sweet potato in Tanzania that promises of multiple “wins” as they call them go mainstream in the humanitarian and international development fields in response to donor expectations.

By definition, promissory narratives rely on idealized futures and on expectations that may fail to materialize. All the promises associated with the rediscovery of amaranth are based on vague allegations. They seldom refer to strong science-based evidence or verifiable sources beyond their endorsement by high-profile institutions like NASA or the World Health Organization that are reported to describe amaranth as a “well-balanced food” (Howard 2013). Yet these references can hardly be considered a scientific backing. They rather pertain to a type of “celebrity branding,” that is, a marketing technique that uses the image and fame of the endorsers in hopes they will be passed on to the products, in this case the promise. The references to “studies” or “modern research” remain somewhat allusive: “studies have shown it to have cancer-preventing, anti-inflammatory and cholesterol-lowering properties”

(Kilpatrick 2015), or "modern research has discovered amaranth to have significant advantages over modern grains: it's easy to grow, easy to digest, and possesses superior nutrition" (Milner 2015). Whereas the virtues and powers of amaranth are forcefully asserted, these claims are neither based on numbers nor on measurements. For instance, amaranth is often claimed to have a high nutrient content, but no numbers are given. The voices of local experts (doctors, agronomists, nutritional experts) are called in as a pledge of integrity instead. They bring situated knowledge and field experience. This is part of a process of building the credibility and legitimacy of the promise. Finally, promises also make use of metaphors and other rhetoric devices that empower them.

Communication Style and Rhetoric Devices

The promises made around amaranth reflect the trend toward positive communication and the injunction associated with producing inspiring stories that drive hope instead of fear and focusing on "solutions" instead of problems (Nelder 2013). This trend is also present in the development aid sector where communication is moving away from despair and destitution to convey the struggles and hopes of local populations (Saillant et al. 2012), in order to arouse more positive emotions among donors. Communication scientists have indeed shown how the rhetoric of fear and catastrophe might end up being paralyzing and preventing action, whereas positive communication based on lexical fields of hope and love might conversely stimulate action (Nelder 2013). This is particularly visible in the documentation of the NGO Lexicon which aims at telling "inspiring" or "illuminating stories," "creating impact pathways," and "transforming lives" through "the contagiousness of hope" (The Lexicon n.d.). Likewise, journalists assert that "amaranth could be life changing" (Milner 2015), "creates the possibility of change" (Howard 2013), and "becomes a world of possibilities" (Del Moral 2017).

Along with its labeling as a "superfood," rediscovered amaranth is also depicted as a "powerful" crop or food by the media and (N)GOs. According to IFAD blog, amaranth has "super power" (Zins 2016) in that it "reduces cholesterol and can protect cells from cancer" while NGO Lexicon claims that amaranth and other "undervalued crops have the power to combat hunger" (The Lexicon n.d.). Amaranth is also compared by journalists to a nutritional "powerhouse" that can "boost" protein or folic acid intake. Others refer to the *poderes sobrenaturales* (El Correo del Sol n.d.) or assert that "Aztec believed that

amaranth gave them physical and spiritual strength” (Milner 2015). But, as we have shown, the metaphors that fall within the lexical field of “fight” are the most frequent, mostly within claims to “fight” obesity and malnutrition or diseases. This is consistent with the findings of Breeze (2017) regarding medical and health claims related to superfoods.

A Not So New Framing

Based on this analysis, we could trace influences of the rediscovery discourse that merges various narratives and promises, namely the *Miracle Food* narrative (McDonell 2015), the *Slow Food* narrative (Petrini 2007), and especially the *Neglected and Under-utilized Species* (NUS) narrative (Rudebjer et al. 2014), recently rebranded as *Future Smart Food* narrative (Li and Siddique 2018). The NUS narrative emerged in the early 2000s under the impetus of the International Plant Genetic Resources Institute (IPGRI), now called Bioversity International, with the launch of a global initiative called “Neglected No More” in 2002 (see McDonell, this volume). The latter aimed at “contribut[ing] to raising the incomes and strengthening the food security of small farmers and rural communities around the world through securing and exploiting the full potential of the genetic diversity contained in neglected and underutilized species” (IPGRI 2002). Bioversity International thus appears as the main actor producing and diffusing the NUS narrative together with IFAD and the Food and Agriculture Organization (FAO). NUS, also referred to as “abandoned, lost, underused, local, minor, traditional, alternative, niche, or underdeveloped crops” (Padulosi 2017, 21), are first defined as plant species “to which little attention is paid or which are entirely ignored by agricultural researchers, plant breeders and policy makers” (Padulosi et al. 2013, 1) and that are “non-commodity crops” (Padulosi et al. 2013, 9). Their neglect and under-utilization are framed as both a cause and a consequence of an accelerated “loss” of diversity in food systems.

The NUS narrative sees the main cause of the abandonment of landraces in their exclusion from formal breeding programs that “has deprived underutilized crops of improved varieties” (Padulosi et al. 2013, 34) and has led to high production costs (Padulosi et al. 2014), which have resulted in the “underutilization” of those landraces. Therefore, solutions mainly focus on making the NUS “commercially attractive” (Clancy et al. n.d., 3) and breeding new varieties. This echoes the framing of the measures recommended to complete the rediscovery of amaranth.

The Untold Story

Following Hajer (2006), what the story tells might be as important as what it leaves out. A series of elements and protagonists of the rediscovery of amaranth is ignored in the proposed narrative, which results in significantly downplaying the complexity of the web of interests. For instance, the three NGO projects mentioned as success stories rely on multiple collaborations with international organizations like FAO, Slow Food, IFAD, research institutions both in Mexico and abroad, and national or international businesses like Kellogg's. These arrangements include direct funding and CSR, as well as commercial relationships (purchase of amaranth, distribution of cereal bars through NGO networks), and flows of knowledge and information.

Coloniality and modernization certainly played a critical role in the discarding of amaranth. Indeed, scholars have shown how the joint effects of the green revolution and the industrialization of food and food aid programs have helped impose the cultivation of improved Western varieties of cereals, the consumption of Western food, and even a neocolonial ontology of food as a fixed stock of nutrients (Peña et al. 2017) and crops as homogenous varieties (Demeulenaere 2014). Nevertheless, the latter are totally absent from the rediscovery narrative's apolitical framing of amaranth as a "forgotten" crop, rather than as a marginalized and subaltern crop. The rediscovery narrative even disseminates a neocolonial ontological representation of amaranth as a stock of (desirable) nutrients or (useful) genetic resources, whereas in a decolonial perspective it should be understood as having nurtured and been nurtured by communities (Peña et al. 2017) and as conveying affects as well as embodied cultural history (Aistara 2014). This highlights the persistence of neocolonial power structures (Pilcher 2012) and the colonization of mind (Mignolo 2009). According to Peña et al. (2017), a decolonization of food and diet should imply both a radical shift in the food system, breaking with what is termed the "imperialism" of the "neocolonial" agrochemical industry (Beilin and Suryanarayanan 2017, 206), and a decolonization of the representation of food. This would allow an increase in both social and epistemic justice, and to recognize both equality in diversity and diversity in equality (Santos 2011), but it does not seem to be the path taken by the rediscovery narrative.

As shown by McDonnell (2015) in the case of quinoa, the "oblivion" might be exaggerated, as amaranth has never stopped being produced and consumed, but for self-consumption and in connection with particular social events that might have fallen under the radar of formal markets and official statistics (Katz

and Lazos 2017). Anthropologists even claim there is a form of continuity in the cultivation, cultural uses, and knowledge of amaranth from precolonial times to the present in certain regions of Mexico (Velasco Lozano 2017; Villela Flores 2016). In such regions, scholars affirm that amaranth-related cultural practices “have resisted the assaults of evangelization and modernity and have supported ethnic identities” (Villela Flores 2016, 52, pers. trans.). Claiming amaranth was lost is a way to blur the active part played by farmers who have domesticated the plant and accompanied its evolution and adaptation over centuries through their breeding practices. This suggests that amaranth is a resource resulting from natural processes, discovered and valued by scientists, and denies its status as a product of patient breeding efforts over generations with obvious implications for the legitimacy granted to actors. The rediscovery narrative is centered on the plant and its powers, while the work and knowledge of farmers are made invisible. Farmers are considered in a paternalistic way as mere passive recipients of tools and expertise developed by external experts (scientists as well as NGOs) pushing further a process of de-skilling (Fitzgerald 1993), ultimately risking their alienation from seed and land.

Finally, the proposed framing of malnutrition, obesity, poverty, and the “loss” of agro-biodiversity is totally apolitical. This paves the way for the resolution of these problems through technical fixes. Accordingly, “natural” super-ancient food/crop and *ex situ* conservation are considered as such regardless of the broader political and institutional context of their deployment. For instance, the origin, legal, and genetic status of the seeds distributed by local NGOs as well as the intellectual property status envisaged for the future varieties are never mentioned. Nor is the fact that the three main collections of amaranth genetic resources to be used for breeding new varieties are found in gene banks outside Mexico, namely in the United States, India, and Peru (Joshi et al. 2018), and were established prior to the Convention on Biological Diversity and the Nagoya Protocol, and are therefore not subject to the access rules laid down in these texts.

Conclusion

The narrative of amaranth’s rediscovery values it for its agronomic and nutritional qualities. It urges us to include amaranth into formal markets, research, and conservation systems to achieve the promised better futures. The rediscovery of

amaranth and its recent consecration as a superfood seem to recycle and update preexisting discourses rather than being a real novelty.

As we have pointed out, the dominant narrative of this rediscovery gives some credit to indigenous communities of the past. It acknowledges and even exaggerates the historical injustice behind colonization by drawing upon unsubstantiated accounts of ban and punishment. By contrast, this narrative ignores the daily practices of production and consumption of amaranth among present-day indigenous communities and obscures the fact that they have never ceased to highlight the novelty of modern amaranth and its many promises. It also masks the neocolonial power relationship that has contributed to the marginalization of amaranth and its producers and disseminates a neocolonial ontological representation of amaranth as a stock of (desirable) nutrients or a set of (useful) genetic traits. Therefore, it pertains to the "fetishization of the (food) culture of ancient indigenous people" (Loyer and Knight 2018, 456) and to a form of "salvage capitalism" as defined by Anna Tsing (2015, 62) rather than to a decolonization process (Beilin and Suryanarayanan 2017).

Regardless of the power of this narrative, it does not follow that the revival of amaranth cultivation and consumption will uniformly follow the futures idealized for them. It cannot be inferred that Mexican peasants are irreparably reduced to the role of passive instruments in the expected amaranth boom. Research on techno-scientific promises and associated story lines has highlighted how unpredictable their effects can be (Joly 2013). As aptly expressed by Brown and Michael (2003, 7), "the past is littered with failed futures." Numerous examples also testify to the ability of farmers to divert, circumvent, and transform mainstream initiatives to their advantage (Van der Ploeg 2012). The micropolitics of amaranth rediscovery on the ground should therefore be thoroughly analyzed, which will be the next step in our research.

Notes

- 1 Nevertheless, "species number of amaranths is not certain because of gradual broadening of the gene pool due to frequent out crossing which has resulted in the emergence of a large number of varieties, morphotypes or cultivars with wide range of diversity, even species" (Das 2012, 273).

- 2 In a report titled “Underexploited Tropical Plants with Promising Economic Value,” published in 1975.
- 3 *Puente a la Salud Comunitaria* (Oaxaca) cited in nine publications, *Mexico Tierra de Amaranto* (Querretaro) cited in two publications, *Alternativas y Procesos Sociales* (Puebla) cited in two publications.
- 4 Namely protein, lysine, fiber, calcium, iron, potassium, phosphorous, zinc, and vitamins A and C.

<https://www.bloomsbury.com/uk/critical-approaches-to-superfoods-9781350123878/>