RE-PLACING THE MEDITERRANEAN DIET: HISTORICAL EXCHANGES AND POSSIBLE FUTURES

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Abstract

The term Mediterranean Diet (MedDiet) suggests a strong geographic orientation, a connection to a region—its flora, fauna, land, sea and histories--that its current generic and ephemeral classification (2018-2023) as the "the best diet overall" by the *U.S. World and News Report* ignores. As this consistent ranking suggests, one of the most common representations of the "Mediterranean" today, in the U.S., and even globally, is that of the MedDiet. It is a concept, tied to idealized images of health and pleasure, which first developed through exchanges in the post-WWII period between scientists from the United States and communities in Greece and southern Italy, which had not yet been substantially transformed by industrialized agriculture and highly processed foods. In the 1950's the now-famous physiologist from the U.S., Ancel Keys, "discovered" the MedDiet during a research trip to Naples. Ever since, tension has existed between Keys's place-based research and the call for this diet, based largely on plant foods, seafood, olive oil, and limited consumption of meat and dairy products, to be universally translated. Any attempt to evaluate the influence of the MedDiet must face the overwhelming influence of the model in scientific studies (with over 5,000 publications a year just since 2020 in the U.S.) as well as its branding by agri-food interests. While Ancel Keys's epidemiological research on lipids and heart disease was groundbreaking, the concept of the MedDiet has evolved into a global scientific mythology that needs to be reevaluated and re-placed into specific historical and social contexts that acknowledge the biological and cultural diversity of Indigenous, peasant, and traditional foodways as well as the challenges of the contemporary industrialized food system. As early as 1998, two southern Italian researchers, Vito Teti and Massimo Cresta, formed a transdisciplinary team that questioned the tunnel vision of the scientific model, reminding scholars that the southern Italian communities associated with the MedDiet had evolved agricultural and eating patterns, which maintained balanced and sustainable relationships, not as a choice but as a means of survival in specific environments. Although their research has been largely ignored by scholars of the MedDiet, it invites us to examine how certain traditional Italian foodways were de-territorialized or stripped of their rich and complex cultural and environmental histories, as scientists paradoxically categorized them using the often-slippery geographical term of "Mediterranean."

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At the same time, the contemporary revalorization of the biocultural heritage created over generations within marginalized communities in southern Italy, which Vito Teti continues to help document through his concept of *la restanza*, emphasizes the importance of recognizing transdisciplinary and transnational exchanges as well as the possibility of healthier and more sustainable futures through relational and collaborative foodways wherever we live.

Keywords: Mediterranean diet, relational foodways, biocultural heritage, transdisciplinary exchanges, mobile identities

The term Mediterranean Diet (MedDiet) suggests a strong geographic orientation, a connection to a region—its flora, fauna, land, sea and histories--that its current generic and ephemeral classification (2018-2023) as the "the best diet overall" by the *U.S. World and News Report* ignores (Hinze and Chien, 2023). As this consistent ranking suggests, one of the most common representations of the "Mediterranean" today, in the U.S., and even globally, is that of the MedDiet. It is a concept, tied to idealized images of health and pleasure, which first developed through exchanges in the post-WWII period between scientists from the United States and communities in Greece and Southern Italy, which had not yet been substantially transformed by industrialized agriculture and highly processed foods. In the 1950s the now-famous physiologist from the U.S., Ancel Keys, "discovered" the MedDiet during a research trip to Naples.[1] Together with his wife Margaret Chaney Keys, he popularized that diet in their best-selling advice manuals, *Eat Well and Stay Well* (1959) and *Eat Well and Stay Well: The Mediterranean Way* (1975). Ever since, tension has existed between the Keys's place-based research and the call for this diet, based largely on plant foods, seafood, olive oil, and limited consumption of meat and dairy products, to be universally translated (Anderson and Sparling 2014, 165-167).

Any attempt to evaluate the influence of the MedDiet must face the overwhelming influence of the model in scientific studies as well as its branding by agri-food interests. While Ancel Keys's epidemiological research on lipids and heart disease was groundbreaking, the concept of the MedDiet has evolved into a de-contextualized global scientific mythology that needs to be re-placed into specific historical and social contexts that acknowledge the biological and cultural diversity of Indigenous, peasant, and traditional

1 Ancel Keys investigated the low rates of cardiovascular disease among southern Italian workers.

foodways[2] as well as the challenges of the contemporary industrialized food system. As early as 1998, two southern Italian researchers, Massimo Cresta and Vito Teti, formed a transdisciplinary team that questioned the tunnel vision of the scientific model, reminding scholars that the southern Italian communities associated with the MedDiet had evolved agricultural and eating patterns, which maintained balanced relationships, not as a choice but as a means of survival in specific environments (Cresta and Teti 1998, 1-6). Although their research has been largely ignored by English-speaking scholars of the MedDiet, it invites us to continue examining how certain traditional Italian foodways were de-territorialized or stripped of their rich and complex cultural and environmental histories, as scientists paradoxically categorized them using the often-slippery geographical term of "Mediterranean." At the same time, the revalorization of peasant knowledge and practices within traditionally marginalized communities in southern Italy today, which Vito Teti continues to help document, emphasizes the importance of recognizing transdisciplinary and transnational exchanges as well as possible futures of relational and collaborative foodways wherever we live.[3]

Historicizing the Mediterranean Diet as a Scientific Paradigm

> Romantic thoughts about the remote past come naturally while lunching somewhere in view of the sparkling Tyrrhenian Sea. A ball of fresh mozzarella cheese, still dripping whey, dark country bread warm from the oven, a local wine, and a basket of fruit … this is the ideal menu to conjure up the vision of Ulysses—or Aeneas—standing at the prow, his men straining at the oars of the little boat not far out beyond the breakers.
>
> Keys and Keys, 1975, 27

In *Eat Well and Stay Well: The Mediterranean Wa*y (1975), Ancel and Margaret Keys describe specific coastal territories of the Mediterranean basin as romanticized lands of health and pleasure whose traditions began with the feats of western heroic colonizers. This was the second bestseller in which the couple translated the famous physiologist's research and their own lived

2 We are following the lead of Indigenous activists and scholars such as Shiloh Maples and Rowen White, who use the term "foodways" or "relational foodways" to reflect their communities' ancestral and affective connections to lands, seeds, and plants (Valeriote 2021).

3 For Teti's recent research, see the Bibliography.

experience into a nutritional self-help book, complete with recipes, for American consumers to replicate the "Mediterranean way" in their own homes.

Keys's mythology of the Mediterranean basin, especially the Italian region of Cilento where he and his wife lived for over 30 years, proposed that seemingly timeless Ancient Greek practices continued through the twentieth century to cure the alimentary confusion and chronic illnesses of the increasingly industrialized and globalized food system of the post-WWII United States. This imaginary vision of the Mediterranean also obscured the tensions of Keys's "discovery" and translation of place-based food traditions into a scientific, universalizing language, which has in its own way contributed to today's homogenization of traditional diets and health inequities (Moffatt and Morell-Hart 2020). In addition, in the Introduction to his 1975 bestseller, Keys defines the Mediterranean Way, later labeled the Mediterranean Diet (MedDiet), in ethnic and racial terms that would appeal to his readership in the United States.

Even though Keys was very aware of class-based differences in eating habits as well as the ways in which the industrialization of the globalized food system was affecting traditional foodways, he focused on what he described as seemingly stable and timeless ethnic and racial characteristics (Keys and Keys 1975, 40). *The Mediterranean Way* paradigm avoids structural social and economic changes by focusing on how to translate "our" Mediterranean world, which is "a direct heritage of the Greeks," into eating guidelines for individuals in the United States rather than on the larger patterns of dramatic change in food production and consumption on a global level (Keys and Keys 1975, 26).

In the "Introduction" to their second bestseller, Ancel and Margaret Keys outline his "Diet-heart hypothesis" that "the concentration of cholesterol in the blood has much to do with the development of the kind of hardening of the arteries, atherosclerosis that is the basic fault in coronary heart disease, the `epidemic of our age'" (Keys and Keys 1975, 2). By "our" Keys is referring largely to men in the United States where he worked at the University of Minnesota (Keys and Keys 1959, 23). He also describes how his research from the 1950s-1975 throughout the world, including the famous study, *Seven Countries. A Multivariate Analysis of Death and Coronary Heart Disease*, demonstrated that very different traditional foodways with plant-based diets led to populations with much lower levels of both obesity and heart disease. They describe, for instance, how research in South Africa in 1955 demonstrated that the "Bantu" population suffered much less heart disease than the "Europeans" from the same nation despite large economic inequities. Yet, they conclude "Great! Who wants to be a

Bantu?" (Keys and Keys 1975, 6).[4] In a similar section they discuss the lack of heart disease in Fukuoka, Japan. Despite this awareness, they chose to construct their concept of the healthiest food practices, the "way," based on the cultures of just four out of 26 countries of the Mediterranean basin: Greece, Italy, southern France, and the coastal region of Spain (Keys and Keys 1975, 25). In describing why they limit the Mediterranean region to these four territories, they explain that the "native cookery of Africa must be ignored" and that food of the Middle East "does not quite fit" (Keys and Keys 1975, 26). They conclude that non-European Mediterranean foodways would not "assure cultural and culinary harmony," suggesting that their primary audience of readers in the U.S. would only find European cooking and eating models appealing (Keys and Keys 1975, 25).

Keys's description of "our" Mediterranean world also includes imagined links between the contemporary diet and the mythology of epic heroes from Ancient Greece and Rome, inviting readers to see themselves as part of a unified and authoritative western culture. In Elisabetta Moro's extensive research on Ancel Keys's experience in the Cilento, she describes the origin stories that he creates, which are based on an idealized scientific lineage with historical roots in the same land where he purchased property for his own villa in 1965. While he was learning recipes from local sources, especially from his own cook and housekeeper, Delia Morinelli, he imagined himself as part of a Western philosophical tradition that dated back to the founding of the nearby Greek colony of Elea (Velia) where there might have existed an early school of medicine (Moro 2014, 114; Keys and Keys 1975, 23). In 1983, Keys explained that after he bought the property in the 1960s with money made from the couple's first bestseller, they decided to name the compound where they lived with other colleagues, Minnelea (Keys 1983, 23). The name of their utopian scientific community combined the Sioux word for water (minne), derived from the name of their academic hometown Minneapolis and the name of the nearby archeological site of Elea (Moro 2014, 114).

With the creation of Minnelea, the Keys highlighted an imagined connection between Ancel and the Greek Eleatic School of philosophers. While making those links, though, Keys did not consider the historical, political, and economic structures that allowed him to transform the

4 Interestingly, Mintz and Nayak (1985) note that a large group of Bantu peoples of South Africa, known as the Bemba, share a foodway focused on their "core" crop, millet. The "kasha" made with this grain is embedded in the local community context as the nutritional, emotional, and spiritual base of the diet. While the core in the case of the Bemba is millet, in Mexico it is maize tortilla, in Eastern Europe black bread, in Asia rice, etc.

place-based agricultural and culinary knowledge of Cilentan farmers, fishers, and cooks into a timeless guide to healthy living, a commodity that he was able to sell based on his own authority as a scientist. Although the Mediterranean represented traditional cultures that could be easily idealized from the perspective of readers in the United States[5], the Indigenous foodways of the Americas, as well as many other non-European cultures, were ignored because they could not be embedded into this invented landscape without confronting racial and gendered hierarchies and historical traumas.[6]

Racial hierarchies and historical traumas also played a role in the history of the Cilentan foodways, but not in Keys's interpretation of it as a prime example of their Mediterranean way. While Ancel Keys was very aware of historical and economic differences between northern and southern Europe (Keys and Keys 1975, 7), he mostly ignored them in the development of his notion of the MedDiet, and particularly in Cilentan food as its emblematic variety. As Vetri Nathan has described, even today Italy continues to be described through different media, including cinema, as "Europe's internal, hybrid Other" for several factors including its relatively late political unification as a state, its cultural fragmentation, and the representation of southern Italy as the "internal Other" within the nation (Nathan 2017, 33-35). This "chronic ambivalence" about Italy's status as a modern European state allowed Keys to both encourage readers from the United States to identify with the eating habits he developed in the Cilento as part of what he describes as a communal Western heritage and to exoticize southern Italy within a vague pre-industrial yet culturally prestigious Mediterranean culture of leisure and pleasure.

Ancel Keys's successful translation of local foodways into the universal model that became the MedDiet can be largely attributed to his authority as an internationally recognized scientist whose comparative, epidemiological studies presented findings as global, nutritionally-based

5 Harry Eli Kashdan, for example, writes about the Anglophone cookbooks of Mediterranean food published around the time that Ancel Keys was conducting his research and writing his popular books with Margaret Keys on the MedDiet. Kashdan concludes that the authors, such as Elizabeth David, construct a seemingly cohesive regional identity "rooted in its foodways and render this Mediterranean newly available for consumption by Anglophone readers" (2017, 2).

6 Gary Nabhan describes the connections between lifestyle and place among Native American peoples, which is applicable to traditional European farmers with a long-term land tenure: "Because certain indigenous peoples have lived in the same habitats for centuries, their language often encodes traditional ecological knowledge" (2000, 1288).

solutions for health challenges.[7] While this research was cross-cultural in its comparisons of dietary patterns and analysis of health disparities between different societies, its emphasis on the science of nutrition often limited important examination of communities' evolving cultures, histories, and relationships to their environments, which impacted their ability to sustain healthy food patterns.

Ancel Keys was also aware that traditional diets, including those he labeled as paths in the Mediterranean way, were quickly eroding as societies industrialized and became more affluent (Keys and Keys 1975, 24); although he acknowledges those challenges, his specialized scientific training encouraged him to focus on individual eating patterns and macronutrients, especially lipids, minimizing the analysis of larger economic and cultural trends such as intensive agriculture and fast food that were making it difficult for people even in the Cilento to follow traditional pathways.[8]

Keys's research on the relationship between lipids and heart disease created an interest in the "oldways" or traditional diets in which many communities had much less access to sugar and saturated fats (Silva 2018, 578-79). Yet the MedDiet became the "best" universal model for nutritional recommendations or what Tracy calls "the gold standard of healthy eating" because it is the most frequently studied for several reasons, including transnational ethnic and racial hierarchies, which celebrated Italian foods when Keys was writing his bestsellers, but had demonized them during the period of mass immigration from southern and eastern Europe (Willett et al. 2019, 454; Tracy 2019, 390).[9] These

7 Sarah W. Tracy notes that "Keys believed other countries and regions of the world had much to teach Americans about their health. As the United States staggers to meet the health needs of its 325 million residents, the same may be true today" (Tracy 2019, 387). Although this is certainly still true today, it is important to keep in mind that Keys's dietary model greatly restricted the cultures from which he thought readers in the United States could learn new ways of eating; his model accepted contemporary racial hierarchies rather than challenging them.

8 While Keys was very interested in the Greek origins of the Cilento where he lived, he never referenced the contemporary issues facing southern Italians in the post-World War II period such as land reform, the rapid industrialization of the "economic miracle," and mass emigration to northern Italy as well as other countries. For a summary of those changes, including the disappearance of the traditional peasant culture Keys praised, see Bevilacqua 2005, 133-161.

9 Donna Gabaccia traces this uneasy transition describing "how the postwar years instead saw ethnicity `go corporate' and become American in a newly tolerant culture, where eating had finally and truly become big business" (Gabaccia 1998, 148). Two examples are Progresso and Pizza Hut (Gabaccia 1998, 169-170). This industrialization and corporatization of Italian peasant traditions that had arrived

transnational racial narratives still affect how the MedDiet is translated in the United States in addition to how it is re-translated into the regions of Italy where it had evolved.

Historicizing the Mediterranean Diet as an Anthropological Paradigm

> These days, food and olive oil seem to travel with a great deal more welcome than people.
>
> Anne Menelay, 2020, 79

After Ancel Keys translated the practices of certain Mediterranean communities into a universal, scientific language, the concept of the MedDiet migrated to new epistemological fields as it expanded into both the anthropological sphere of food practices and the agri-food's branding of Spanish and Italian olive oil, what António José Marques da Silva calls the Med Label (Silva 2018, 574). Silva traces how an NGO, the Oldways Preservation and Exchange Trust (OPET), played an important role in connecting the MedDiet scientific research on cholesterol with the branding of olive oil by the International Olive Council (IOC) to consumers in the United States and other industrialized English-speaking countries who had new concerns about nutrition and health (Silva 2018, 578). The IOC started to work closely with OPET in the 1990s and helped finance a conference in January 1993 at the Harvard School of Public Health where experts from governmental and non-governmental organizations, scholars from universities, and also agri-food business interests designed a MedDiet pyramid (Figure 1) modeled on the recently disseminated US Department of Agriculture (USDA) pyramid (Silva 2018, 578-79).

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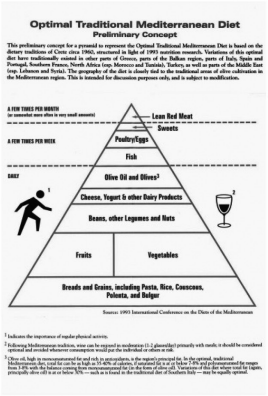
in the U.S. with earlier immigrants happens just as Ancel Keys is disseminating information about the importance of fresh foods in his popular books on the "Mediterranean Way."

1993



2018

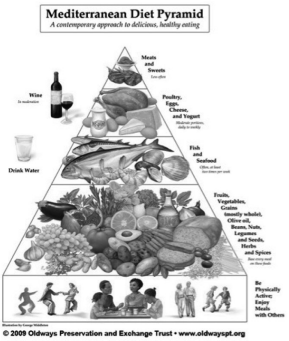


Figure 1: Transformation of the Mediterranean Diet Pyramid 1993-2018 (©Oldways, www.oldways.org) (Baer-Sinnott, 2018).[10]

While OPET was disseminating the MedDiet pyramid in the United States, a different organization, the Mediterranean Diet Foundation (MDF) [Fundación Dieta Mediterránea], which also included large agri-food companies, promoted the MedDiet internationally. Centered in Barcelona, the MDF's mission to protect the MedDiet as a model of health and well-being could not be separated from its promotion of products, especially olive oil. As Silva summarizes "it is clear today that the olive oil lobby . . . made a visionary move with a durable effect" (2018, 580). In just one generation, there has been an increase of consumption by 49% in countries outside of the Mediterranean region with Spain being by far the largest producer in the world (Maffia et. al 2020, 2). The graph below (Figure 2), which indicates the number of scientific publications with a hit phrase "Mediterranean diet" in each year for the selected country shows how the rise of popularity of the concept in the 1990s coincides with the increase of sales of olive oil, especially in the United States.

10 Sara Baer-Sinnott, "Happy 25 Years to the Mediterranean Diet Pyramid!," Oldways, January 18, 2018, accessed December 21, 2023, https://oldwayspt.org/blog/happy-25-years-mediterranean-diet-pyramid.

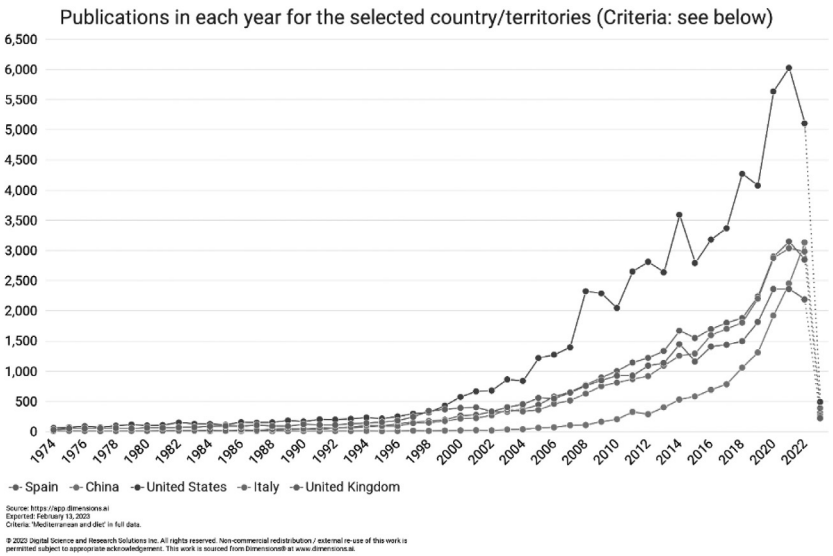


Figure 2: The screenshot of an interactive visualization shows the number of research publications with target words 'Mediterranean' and 'diet' in each year for the selected country (Spain, United Kingdom, United States, China, Japan, Italy and Israel) from 1975 to 2021 [the graph was generated using the dimensions.ai database that includes datasets from repositories such as Figshare, Dryad, Zenodo, Pangaea, and many more]. [11]

If Ancel Keys's scientific paradigm of the MedDiet provoked a de-territorialization of Cilento's practices, the movement to valorize them through a more anthropological lens, working to have the MedDiet recognized by UNESCO as an Intangible Cultural Heritage of Humanity, paradoxically continued that process. At a trans-Mediterranean meeting in Madrid in 2007, leaders of the effort to earn UNESCO recognition decided that Spain, Greece, Italy, and Morocco would serve as the representative national teams to draft the UNESCO proposal. In Rome in 2008 the four national groups decided that the MDF would coordinate the drafting of the proposal and choose four "emblematic communities" that represented the different nations (Silva 2018, 581-82). Largely due to its connection to the scientist Ancel Keys, Cilento was chosen as the emblematic region for Italy. Although one of the intentions was to promote community in-

11 Arina Melkozernova, personal screenshot, "Publications per year/country graph," February 13, 2023.

volvement by focusing on representative or emblematic communities from different countries of the Mediterranean rather than on national identities, the term "Mediterranean" often ends up camouflaging the distinct local foodways—like those of the Cilento--that it collects under one umbrella (Nestle 1995, 1317S; Nestle 2018, 173-75). In fact, the representatives of the four emblematic communities, which were supposed to exemplify the lifestyle not only of their localities and their nations, but also of the entire Mediterranean basin, met for the first time only four months before the application's submission (Silva 2018, 583).

One of the goals for the MedDiet pyramid was to include everyday habits, interpreted as part of the Mediterranean heritage going back to the Ancient Greeks, as well as recommend a combination of different types of foods and portion control. While even the first pyramid focused on complementary physical activity, later iterations embedded numerous practices such as adequate rest, conviviality, seasonality, moderate consumption, and cooking of local foods at the base of the pyramid (Sahyoun and Sankavaram 2016, 48). The graphic's increasing focus on the MedDiet as a lifestyle aimed to ground cultural practices within the heritage of certain localities and at the same time propose them as behaviors that could be imitated globally. Simona Stano (2018) interprets the increasing focus on lifestyle practices within the evolution of the pyramid as part of the process to have the MedDiet included in the UNESCO Representative List of the Intangible Cultural Heritage of Humanity. The proposal was first rejected because of its focus on scientific criteria and a lack of cultural factors that connected the emblematic communities. As Stano summarizes, the 2009 Oldways MedDiet pyramid and the 2010 MDF MedDiet pyramid served as responses to the "oxymoronic tension between globality and locality characterizing contemporary foodscapes" (Stano 2018, 457).[12] Both OPET and MDF played important roles in supporting the effort to have UNESCO recognize the MedDiet as an intangible cultural heritage; UNESCO granted that status in 2010 and then extended it to Portugal, Croatia, and Cyprus in 2013 (Sahyoun & Sankavaram 2016, 49). In this way, the UNESCO process of recognizing the importance of local, traditional foodways, was at least partially appropriated to brand certain products, especially olive oil, rather than addressing in a more relational and holistic fashion the contemporary health and environmental issues that challenged not only the

12 2010 FUNDACIÓN DIETA MEDITERRÁNEA, "¿Qué Es La Dieta Mediterránea?," FUNDACIÓN DIETA MEDITERRANEA, accessed December 21, 2023, https://dietamediterranea.com/nutricion-saludable-ejercicio-fisico/#pyramid.

consumers of the MedDiet-branded products in the United States but also increasingly the communities whose practices inspired the model.

It is also noteworthy that the UNESCO recognition of the MedDiet includes only one community that is usually categorized as North African or Middle Eastern. The dietician, Kate Gardner Burt (2021), pointed out that even though foodways from those geographical areas are very similar to Greek and Italian eating practices, they have never received the same attention from researchers. As Burt summarizes: "if the dietary pattern associated with the lowest incidence of heart disease was truly sought, unbiased researchers would have explored Keys's findings in these (or other) non-white populations with lower meat consumption" (Burt 2021, 47). It seems that Ancel Keys's initial focus on southern European Mediterranean food cultures, which supported the notion of a homogenous Euro-centric population in the United States, continues to have an effect on how the model develops. While recent research suggests that the contemporary countries that follow most closely the MedDiet nutritional model are outside of Europe, such as Egypt (Sahyuon and Sankavaram 2016, 54), the whole Mediterranean basin, including areas famous for the MedDiet in Europe such as Greece, Spain and Italy, face increasing health and environmental challenges because young people are abandoning traditional foodways.[13] Nonetheless, those southern European countries remain the focus of the MedDiet promotion both in terms of its representation and the branding of olive oil.

The uneven access to the marketing benefits of the MedDiet as well as the global olive oil market supports southern European nations and communities while it largely excludes others. For instance, Anne Menelay writes about the political, economic, and cultural challenges that prevent the circulation of Palestinian olive oil, commenting that "the idea of 'place' is particularly charged when your place is being taken from you" (Menelay 2020, 78). The recent tragedy of terrorism and warfare in Israel and in Gaza, has made it even more challenging for Palestinian farmers on the West Bank to harvest the olives from their trees, a fundamental practice of their own traditional Mediterranean foodways.[14] Menelay also notes that

13 For data about the lack of adherence to the traditional eating patterns in southern Italy, see Cresta 1998, 154-55 and Grosso and Galvano 2016, 13-19. For a more general analysis of the "paradoxical" decline of adherence to the MedDiet in most Mediterranean countries and its negative consequences for human and environmental health, see Ridolfi et. al 2020, 124-25.

14 Newspapers from across the political spectrum have reported in November and December 2023 on violence against Palestinian olive farmers that have not only prohibited the harvesting of olives but also at times cost them their lives: https://

while we promote transnational identities like the MedDiet in terms of the circulation of foods, these ideas are in conflict with the strong sense of nationalism, which reinforces borders in terms of the movement of people (Menelay 2020, 79). In this way national and racial hierarchies continue to influence how the MedDiet shapes foodways both in countries outside of the Mediterranean basin, particularly the United States, and in the communities that have depended on the fruits of the olive tree over millennia. Instead, an emphasis on the common need to revalue and protect the Mediterranean basin's rich and dynamic agrobiodiversity, together with the people who cultivate it, would shift the attention away from a focus on specific products, and encourage more thoughtful and holistic consideration of the role of traditional foodways in the health of contemporary communities throughout the region.

Historicizing the Mediterranean Diet in the Cilento

> Food has a history: frightening, heroic, miraculous.
> Sacred scripture contains stories of provisions from heaven.
> The word hunger has been feared more than the word war,
> than the word plague, than earthquakes, fires, floods.[15]
>
> Erri De Luca, 2022.

It is often remarked that Ancel Keys embodied the MedDiet because he lived in Cilento for over 30 years where he joined the ranks of the community's famous centenarians. Keys, though, lived there with distinct privileges, which certainly facilitated his own access to delicious fresh food and good health. Due to the historical poverty of southern Italy, the strong racism against Southerners because of their work as farmworkers in an agricultural economy that permitted them little power over their own lives, the rapid industrialization of the "economic miracle" in northern Italy, and

www.npr.org/2023/11/10/1211687030/the-death-of-a-palestinian-olive-farmer-emphasizes-conflict-over-land; https://www.theguardian.com/world/2023/nov/30/no-work-and-no-olives-harvest-rots-as-west-bank-farmers-cut-off-from-trees; https://www.wsj.com/story/palestinians-flee-the-west-bank-after-settler-violence-3abf817e.

15 "Il cibo ha una storia spaventosa, eroica, miracolosa. La scrittura sacra contiene narrazioni di provviste del cielo. La parola fame è stata più temuta della parola guerra, della parola peste, di terremoti, incendi, inondazioni." (De Luca 2022, 7).

another wave of mass emigration,[16] Keys could afford ocean-front property as well as a gardener and a cook to produce his food. His personal chef and housekeeper, Delia Morinelli, was an important source of his knowledge of local foods and recipes, which were often passed down orally through generations of mothers and daughters (Moro 2014, 46). Yet she has only recently received some recognition for her contributions to his research as a knowledge holder of the traditional strategies.

From recent interviews with Morinelli and other women of her generation and their daughters, most notably by the anthropologist Elisabetta Moro, the story of invisible labor unfolded: on the daily basis women participated in vegetable and wheat production, milled their own flour, made their own breads and pasta, managed to conserve important foods in their culture such as eggplant and anchovies, and also transported fish from the seaside to the hilltop towns where families practiced terraced farming and produced olive oil (*Granai del Mediterraneo*).[17] The knowledge and experiences of these women is erased when their Cilentan traditions are reinscribed in Ancel Keys's scientific paradigm or in a vague anthropological notion of traditional Mediterranean practices.

Focusing on Elisabetta Moro's interview with Morinelli, we will first examine how the conversation comments on the MedDiet pyramid's focus on conviviality or the sharing of food together at the table (Morinelli 2013). She discusses Ancel and Margaret Keys' favorite culinary preferences and the dishes that they would ask her to prepare, including for their own meals with friends and colleagues. Morinelli clearly expresses her affection for the Keys and what she learned from exchanges with the scientists about the contrast between her own salutary traditional food practices in comparison with to the so-called Western, industrialized diet. She relishes thinking about their admiration for her "piatti poveri," especially those made with fresh pasta, seafood, legumes, and produce. She describes in detail a "simple" yet clearly labor-intensive dish that the Keys included in their book because it was one of their favorites. For this dish, Morinelli would first peel eggplants and potatoes and then layer them with tomatoes and fresh

16 In describing the post-war changes in the South, Piero Bevilacqua explains that since the traditional peasant agricultural work disappeared, for many it left no other choice than to emigrate. From 1946-1976 it is estimated that 4 million people left southern Italy. Ironically, this is the period in which Ancel Keys disseminates the traditional eating patterns of the same region as a model for healthy living. Bevilacqua 2005, 152.

17 See for example, the 2013 interview with Giuseppina Martucci and Rosetta Petillo. https://www.granaidellamemoria.it/index.php/it/archivi/granai-del-mediterraneo-cura-delluniversita-di-napoli-sob/giuseppina-e-rosetta.

herbs--parsley and oregano—before cooking the dish slowly over a low flame (Morinelli 2013, 3:25; Moro 2014,165).

When asked if she would eat the dish with the Keys, Morinelli responds "no" because "of the time" and continues "do you know how [much] I worked in those early years?" She goes on to explain how she cooked for both her own husband, a fisherman, who lived "the life of the sea" and ate in the early morning, and then for the Keys mid-day, only to return home at 3:30 to feed her husband again (Morinelli 2013, 4:32). Because of her dual responsibilities as a cook in two households, Delia comments that she often did not have the time to sit at the table to eat as the MedDiet pyramid recommends. Instead, she chuckles as she explains how she would eat a "panino" with zucchini as she traveled between one house and another making sure that everyone else was able to eat at the table.

The translation of Morinelli's recipes and practices into a utopian MedDiet model of daily familial meals around the table effaced her knowledge as well as her labor, creating a quotidian ideal which probably never existed for peasant families. As Monica Truninger and Dulce Freire describe in their research on Portugal and Morinelli's story illustrates, traditional farmers often struggled to keep a fixed eating schedule because of the demanding requirements of their work: "The mythologizing of Mediterranean lifestyles such as eating together at the table enshrines an ideal rarely attained in practice" (Truninger and Freire 2014, 199). Even today the MedDiet's continuation of an idealized commensality together with its focus on seasonality and fresh food, places the burden of achieving those nutritional goals on families, especially mothers "without giving them resources to provide better food, such as flexible work hours, reductions in the gender wage gap, and changes to a welfare system that has pushed many women to low-wage jobs" (Kimura et al. 2014, 41). This is also true in the Mediterranean societies that Keys used as models that have experienced "demographic and cultural transformations," including greatly increased female participation in the paid workforce and yet the "moral expectations about eating together" persists (Truninger and Freire 2014, 199).

At around the same time that Keys was beginning his research on the traditional foodways of southern Italy, an Italian biologist from the Cilento, Massimo Cresta, started a longitudinal study in a small town of the same region. Although this study provides extensive data about how people in rural Cilento ate and lived from 1954-1997, it was published in Italian and received very little attention from those defining the MedDiet outside of Italy. At the beginning of the study, Virgilio Tosi, a filmmaker, made a short documentary about the goals and early results of the research; *Inchi-*

esta alimentare a Rofrano emphasizes the isolation and poverty of a small town in the mountainous interior of the Cilento as well as its resilience and creativity. The data that the film shared about the daily food intake of Rofrano's families, describes a variety of the MedDiet that, like Keys's model, depended mostly on grains and produce, yet the subsistence farming did not allow the town's youth to grow at the same rate as children in other more urbanized areas of Italy (Cresta et. al 1982, 73-76). The fear of not having enough to feed one's children was an aspect of Cilentan peasant culture illustrated by the video that Keys glossed over in creating his dietary model.[18]

While the documentary stresses that almost everyone in Rofrano engaged in strenuous physical agricultural labor, the visuals, in particular, emphasize the amount of physical work required of women. One graphic communicates that 84% of households lacked running water and included an illustration of women collecting water at a fountain to carry home (Figure 3).

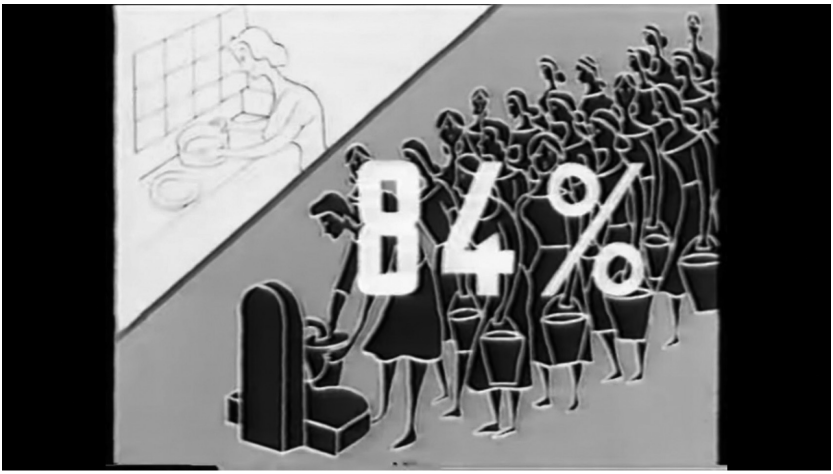


Figure 3: A still frame from *Inchiesta alimentare a Rofrano*, directed by Virgilio Tosi (1954).[19]

18 In describing the poverty of post-war Italy in 1945, Donna Gabaccia writes that "over 90 percent of Italians lacked one or more modern amenities (electricity, drinking water, or a toilet) in their own homes" (2000,155).

19 Virgilio Tosi, *Inchiesta alimentare a Rofrano*, Archivio Storico Luce, Cinecittà, video, 6:57, https://patrimonio.archivioluce.com/luce-web/detail/IL3000088466/1/-

Another sequence shows a woman carrying her newborn child in a cradle on her head as she heads to the field where she will work. Yet another sequence shows women carrying heavy rocks, which can weigh up to 50 kilos, up a mountain as the narrator explains that they also often worked as laborers in construction projects (Figures 4 and 5).

Figures 4 and 5: Still frames from *Inchiesta alimentare a Rofrano*, directed by Virgilio Tosi (1954). Left: Women carry containers of many sizes on their heads, among them a cradle with the newborn.[20] Right: Women carry building stones on their heads. [21]

These still shots of women's hard physical labor contrast starkly with the depictions of physical activity in the MedDiet pyramids, such as people dancing, playing soccer or taking a relaxing walk. The poverty and physical challenges that women confronted to feed their families in southern Italy were also largely overlooked by Keys, and certainly do not find a place in recent romanticized representations of the Mediterranean diet like this Oldways book cover, which associates the traditional foodways with bucolic landscapes and leisure (Figure 6).

49255.html?startPage=0&jsonVal=.

20 Virgilio Tosi, *Inchiesta alimentare a Rofrano*, Archivio Storico Luce, Cinecittà, video, 7:24, https://patrimonio.archivioluce.com/luce-web/detail/IL3000088466/1/-49255.html?startPage=0&jsonVal=.

21 Virgilio Tosi, *Inchiesta alimentare a Rofrano*, Archivio Storico Luce, Cinecittà, video, 8:11, https://patrimonio.archivioluce.com/luce-web/detail/IL3000088466/1/-49255.html?startPage=0&jsonVal=.

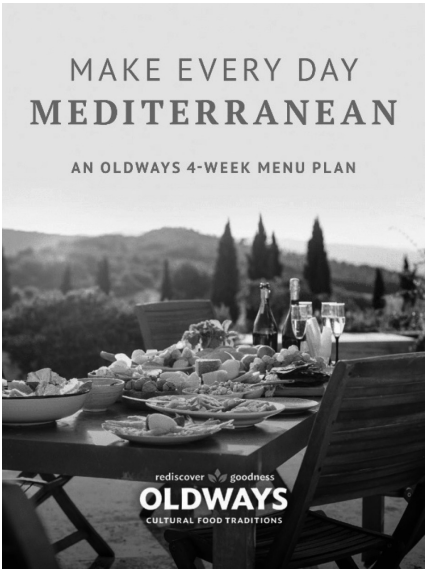


Figure 6: The cover of *Make Every Day Mediterranean: An Oldways 4-Week Menu Plan*, Oldways, www.oldwayspt.org, 2019.[22]

This kind of juxtaposition, though, brings up challenging questions about the missing people and invisible labor in many visual contemporary representations of the MedDiet, which focus on tables full of fresh food.

Over twenty years ago in 1998, Massimo Cresta, the Cilentan scientist responsible for the longitudinal study cited above, organized an international conference with a southern Italian anthropologist, Vito Teti; the goal of their international research was to reevaluate the "road of food habits in the Mediterranean" from both a biological and cultural perspective. In the introduction to that conference's proceedings, the two southern Italian scholars examined both the limits of studying any foodway in terms of individual bodies and instead insisted on the importance of humanity's biological and cultural connections to place, history, and environment when working toward the goal of creating balanced food practices:

22 "Oldways 4-Week Mediterranean Diet Menu Plan Book," Oldways, accessed December 21, 2023, https://oldwayspt.org/resources/oldways-4-week-mediterranean-diet-menu-plan-book.

> Walking along the shores of the Mediterranean and looking at the world from these shores, seems to us a way of re-establishing, or establishing in new terms, profitable dialogue between the humanities and sciences. At a historical moment when … advances in biology are forcing us to face difficult ethical and philosophical problems, we should remind ourselves that a human being is not only his or her body, but also the places, the culture, the personal and social history, and the environment to which he or she belongs (Cresta and Teti 1998, 1).

This place-based, transdisciplinary approach to Mediterranean foodways, however, has been largely unheeded by scholars and nutritional professionals writing on the MedDiet. Cresta and Teti also focused in their introduction on the fear of hunger that had shaped the different varieties of the MedDiet as communities were forced to develop relational foodways in which environmental resources had to be used with frugality and moderation: "hunger is a condition which was historically experienced and lived through by Mediterranean peoples and this had biological and cultural implications" (Cresta and Teti 1998, 3).[23] Thus, the foodways' "precarious and fragile equilibrium" necessitated a "parsimonious and balanced relationship between human beings and the food environment" (Cresta and Teti 1998, 2-3) as well as survival practices based on attitudes of dependence, of conservation, of sacrality toward the web of life in which the Mediterranean communities were embedded. At the same time, Cresta and Teti also noted that in the second half of the twentieth century, just as the Mediterranean foodways were being defined by scientists from outside of those traditions as a "simplified dietary science that anybody can apply," the balanced model had already "been broken in the industrialized countries of the Mediterranean" as food production began to shift from a "biological rationality" to an "economic rationality," which to great extent erased the importance of place, relations, and culture (Cresta and Teti 1998, 3).

The critical analysis of the MedDiet's portrayal of traditional foodways as a homogenizing model that Cresta and Teti engendered in 1998 still continues

23 Indigenous scholars and writers focus on the affinities that place-based traditional foodways manifested in utilizing their fundamental relationships with land for survival. Simon Ortiz, Acoma scholar and poet, describes land as the foundation of the Indigenous morals and ethics (Ortiz 2018). Desert and semi-desert people of the American Southwest such as Acoma, Tohono O'odham and Akimel O'odham to name a few, adapted to abundant and scarce periods with their feast and famine life cycles (Cajete 1999, 97). For example, long-term research demonstrates how the Tohono O'odham's foodways sustain their community and habitat in the Sonoran Desert where we live (Nabhan 1985; 2000).

in Vito Teti's contemporary work on southern Italian cultures today. His writings on southern Italy and its diasporic cultures question historical notions of the South and nutritional branding of the MedDiet by focusing on the territory's history of poverty, emigration, and depopulation as well as the evolving and potentially regenerative relationship between those who chose to stay and those who arrive as recent immigrants. By re-territorializing the concept of the MedDiet in southern Italy, we consider both the past and current traumas of its communities and acknowledge the potential for thoughtful engagement with and revalorization of the relationships, which structure traditional foodways that have been largely marginalized despite their global branding.

Possible Futures of the Mediterranean Diet

> You buried us but you didn't know that we were seeds.[24]
>
> JR and Alice Rohrwacher, 2022.

During the writing of this article in 2023, public exchanges about the MedDiet from across the political spectrum developed into a debate in the Italian media (Vigna 2023). A provocative food scholar and public intellectual, Alberto Grandi, sparked the polemics with interviews in newspapers and on television as well as his popular book and podcast with the same title, *Denominazione d'origine inventata* (DOI), in which he challenges what he describes as food mythologies that have fossilized the dynamic food traditions of the Italian peninsula for purposes of product marketing and "gastronationalism"[25] (Grandi 2020, 62-63).[26]

In a similar vein, Grandi has questioned the notion of the MedDiet as an invention of Ancel Keys, emphasizing the poverty of many southern Italians during the period in which the Keys lived in the Cilento. While Grandi's concern about the representation of "timeless" heritage foods for economic, political, and racist purposes is important to keep in mind, his

24 "Ci avete seppelito ma non sapevate che siamo semi." JR and Alice Rohrwacher (8:39).

25 For Alberto Grandi's views about the MedDiet, see his book originally published in 2018, 62-63 and listen to Episode 43 of his and Daniele Soffiati's podcast. It would also be helpful to watch the short video story by the journalist Tecla Biancofiore, which includes a short segment from an interview with Grandi from an episode of the TV show, *Piazza pulita*.

26 Michaela DeSoucey developed the concept of gastronationalism in her 2010 article about the contemporary uses of national food identities in the European Union.

statements often completely dismiss the creativity and resilience of dynamic peasant foodways that have nurtured a cultural and biological diversity, which has been threatened during the age of industrialized food. During one interview on a popular television show, Grandi not only states that Ancel Keys invented the MedDiet, but that Keys was the one who taught the women of Pioppi how to prepare food because they didn't know how to cook (Biancofiore, 2023).

One public response from the mayor of Pollica (Pioppi) emphasizes the historical evidence that the Keys learned about traditional Cilentan foods from the women of the area. He also suggests that the local sense of food identity is defined by the place-based knowledge and creativity with which these women had developed the traditional foodways by using the ingredients and tools available to them (Biancofiore, 2023). In fact, Grandi's assessment of the MedDiet devalues the ingenuity and skills of women like Delia Morinelli and reinforces stereotypes of southern agricultural communities that the more nuanced research of scholars such as Moro and Teti avoid. Like Grandi, Teti describes the ways in which a mythological MedDiet is marketed today, but Teti also examines the survival histories of southern Italian rural communities including the sacrality conferred on food because of the constant fear of hunger coupled with the adaptability manifested through contemporary efforts to protect the agricultural biological diversity of these resilient towns as a form of "mobile identity," which has evolved in relation to specific environments (Teti 2015, 138). Such mobile identities acknowledge the suffering of the past, respond to the challenges of the present, and envision the largely neglected territories connected to the Mediterranean Diet as places in which it is possible to imagine healthier and more sustainable food futures (Teti 2018, 203).

Fabio Parasecoli's research on food identities also relates to the contemporary debate about the MedDiet. Broadening the concept of "gastronationalism," Parasecoli coins the term "gastronativism" as a conceptual tool for analyzing "the ideological use of food in politics to advance ideas about who belongs to a community (in any way it may be defined) and who doesn't" (Parasecoli 2024, 9). In this way, he examines how intersecting food identities at different scales —not just those of nation states—influence the ways in which a community is able "to assess its past, negotiate its present, and imagine its future" (Parasecoli 2022, 17). Parasecoli also distinguishes "exclusionary" gastronativism that supports different forms of intolerance (51) to "nonexclusionary" gastronativism that does not "imply the exclusion, exploitation, or debasement of others," but instead focuses "on establishing alternative food networks that prom-

ise more equitable and sustainable forms of food production, distribution, and consumption compared to mainstream commercial enterprises" (66). While exclusionary gastronativism promotes the notion of timeless and stable food communities, nonexclusionary forms of gastronativism conceive of relational foodways as heterogenous and dynamic with mobile identities that "could generate more openness toward 'them,' whoever 'they' may be" (Parasecoli 2022,194).

It is this alternative and nonexclusionary view of the future of traditional foodways associated with the MedDiet that Teti examines in his most recent research texts; in which he develops the concept of "restanza" or multigenerational initiatives of individuals and groups who decide to stay in Italian rural towns, especially in the mountainous interior, with the goal of creating "new projects, new aspirations, new demands" for revalorizing their biocultural heritage and regenerating communities that value a sustainable relationship with environments that are often dismissed as backward wastelands (Teti 2020, 7). Teti suggests that the relationships between humans and their environments that developed in these southern Italian communities due to a "parsimonious" yet "balanced" agricultural co-evolution, could serve as important sources of knowledge moving forward (Teti 2015, 7). Likewise, groups that work to sustain local foodways such as the Rete Politiche Locali del Cibo, have regenerated the concept of the MedDiet in their advocacy not as a "decontextualized nutritional model" or a "new brand for the marketing of Made in Italy products" but rather a "territorialized cultural model" that is characterized by a "plurality of biocultural local patrimonies'' together with "an ethical approach founded on sustainability, health, and the diversity of food systems" (*Gruppo di Lavoro Sistemi e Politiche Locali del Cibo 2019*).

Following these re-territorialized concepts of the MedDiet, we will examine two examples of how the MedDiet has been re-historicized and re-placed in southern Italy, offering other possible futures. The first one derives from the same southern Italian locality where Keys lived the last decades of his life. The Cooperativa del Nuovo Cilento is an agricultural Coop with over 400 farmers, which sits above Keys's beloved home of Pioppi in the hill-top town of San Mauro Cilento; it produces olive oils from local varieties such as la Rotondella, as well as providing support for its members who cultivate and protect local foods of the region such as ancient grains and beans like the chickpeas of Cicerale. In addition, it provides opportunities for farmers and gardeners to learn about traditional forms of terraced farming and irrigation that protect the soil from more intensive, industrialized agricultural practices. The Coop is committed to

using farming practices that regenerate the soil, protect the sea as well as freshwater springs, allow residents access to healthy foods, and promote sustainable tourism. Its founder, Giuseppe Cilento, has cleverly altered the MedDiet pyramid in his own presentations and on the Coop's website to add healthy soil at its base. The adoption of practices connected to regenerative agriculture, including the use of traditional polycultural farming, sustains the Coop's entire relational system.[27]

For this community, the MedDiet model begins by acknowledging that more equitable food patterns start with healthy soil and water. In order to achieve this goal, the Coop creatively encourages exchanges between those who preserve local forms of traditional agricultural knowledge and scientists who connect them to networks of regenerative agriculture both at the national and international level. For instance, the Coop promotes the recycling of the organic materials left over from the olive oil extraction process into natural fertilizers. Its efforts to create a circular agricultural cycle in which local farmers who are using the Coop's own compost are supported by a national network, RETE HUMUS, in which professors from several Italian universities serve as consultants. In a similar collaborative fashion, Giuseppe Cilento knew and learned from the scientist Ancel Keys; the Coop cites Keys's work, and they have also invested in new technologies that allow them to preserve and verify a high level of antioxidants in their olive oils based on what they have learned from studies of the MedDiet (Figure 7). What strikes us as important, though, is that the nutritional knowledge connected to the presence of Ancel Keys's legacy in the area is only one source of authority in the map of the Coop's relational agricultural work, which also highlights the importance of protecting local biodiversity and health through collaborations between local farmers, scientists, consumers, and even tourists.

27 We conducted interviews with members of the Cooperativa del Nuovo Cilento, including Giuseppe Cilento, in person at the Coop and on their farms in September/October 2021. Unless otherwise cited, Cooperativa del Nuovo Cilento members provided the information in this article about their collaborative agricultural work, their community projects, and their personal/familial/community relationships with plants/foods. We are grateful to them for sharing their knowledge and experience so generously and consider them co-collaborators in this project. For more information about the pyramid and the Coop's regenerative practices, go to its website: https://nuovocilento.it/chi-siamo-cooperativa-a-san-mauro-cilento/per-vivere-20-anni-di-piu

Figure 7: The map of the Cooperativa del Nuovo Cilento's relational foodway.[28]

The Coop's collaborative exchanges remind all of us that what made the Cilento lifestyle healthy when Ancel Keys decided to live there in order to lengthen his life is not something we can purchase as a commodity but rather a relational food network that still valued the reciprocity principles protecting the traditional ecological knowledge of its ancestors and the community itself. In 2021 we spent time at the Cooperativa and with Giuseppe Cilento as we toured the land of Antonello Di Gregorio, a young farmer of heritage grains and produce like the region's famous white figs. Giuseppe mentors Antonello, passing down both scientific and traditional knowledge (Figure 8). Together they discussed the various strategies they adopt to avoid soil erosion and protect biodiversity such as cultivating the territory's traditionally spontaneous herbs.[29] In this way, the Coop promotes re-territorializing and re-placing the MedDiet. Recently, Di Gregorio has become the new Coop President demonstrating the importance of the kind of intergenerational exchanges of place-based knowledge that we witnessed.

28 "The map of the Cooperativa Agricola Nuovo Cilento's relational foodway," digital image, the Cooperativa Agricola Nuovo Cilento, accessed December 21, 2023, https://th.bing.com/th/id/OLC.ihALa9rR2oFbJw480x360?&rs=1&pid=ImgDetMain.

29 We were surprised to see that Antonello Di Gregorio applies the "three sisters" method of planting corn, beans, and squash together, which is a traditional practice of Native American farming that illustrates the cultural knowledge exchange in relational foodways.

Figure 8: Antonello Di Gregorio (left) and Giuseppe Cilento (right) on the farm. Photo is courtesy of Juliann Vitullo.

Another example comes from the southern territory of Basilicata, connected to the Parco Nazionale del Pollino, where the center for biodiversity of the Agenzia Lucana di Sviluppo e di Innovazione in Agricoltura (ALSIA) has created a network of gardeners, small-scale farmers, and scientists, which was the first in Italy to take advantage of 2015 legislation that encouraged regions to organize *comunità del cibo* [food communities] as the model for other regions (Figure 9). The *comunità del cibo* developed into an interwoven system of custodians, which began with the *agricoltori custodi* [agricultural custodians], gardeners and farmers who sustain mostly traditional plant varieties but also animal breeds, at risk of extinction, and now also includes interwoven networks of *produttori custodi/trasformatori custodi* [food producer custodians], *cuochi custodi* [chef custodians], and most recently, *scuole custodi* [school custodians], which have not yet been added to the map (Formica 2020, 15).

Figure 9: The map of ALSIA's network of custodians.[30]

All together, these networks have managed to valorize and protect hundreds of fruit and vegetable varieties, which were a particularly important part of southern Basilicata's biodiversity and foodway.

In assemblies in 2018, the founding members of ALSIA developed the design of their community based on three shared concepts: biodiversity, protection of the rural landscape and its cultures, and finally the importance of a collaborative network of stakeholders (Formica 2020, 16-17). The community connected the protection of the land's biodiversity to its cultural identities, acknowledging the role of humanity in the landscape and affective connections to it. The founding members emphasized the need to recuperate the territory's traditional ecological "knowledges" and the "strategies for survival," linking the historical traumas of the region with the loss of ancestral practices that connected them to plants and other animals:

30 "The map of the ALSIA network," digital image, the Lucanian Agency for Development and Innovation in Agriculture, accessed December 21, 2023, https://www.alsia.it/opencms/export/sites/alsia/.galleries/biodiversita/PANNELLO.jpg

> The relationship between territory, biodiversity, food, and community was considered the foundation of the perspective for a material, economic, social and cultural regeneration for the southern area of Basilicata. The depopulation and the decline of biodiversity in the area's communities have coincided with the economic and cultural loss of their "knowledges" and their strategies for survival. (Formica 2020, 18.)

ALSIA's focus on the protection of agrobiodiversity encourages collaboration between traditional farmers (the agricultural custodians) and plant geneticists to recuperate and protect heritage varieties by creating a process in which seeds and plants are validated, their germplasm conserved in a seed bank in Rotonda, the rich diversity of ancient varieties nurtured in ALSIA's own experimental fields, but most importantly, the seeds are shared with members of the network to make sure that they continue to evolve in situ in various gardens, farms, and schools of the community. In this way, seeds of heritage varieties are saved and shared among ALSIA members as farmers had traditionally done; they do not belong to an individual or to a company but rather to the community, a gift from the past for the future.

These collaborations between traditional farmers and scientists combine the advantages of place-based knowledge, accumulated over millennia, with genetic scientific methods in order to revalorize and develop the territory's traditional agricultural biodiversity, which has evolved through seed selection by generations of farmers.[31] One of ALSIA's current projects is developing mixtures of various bean varieties. Back in the 1960's, Ancel and Margaret Keys had described the importance of legumes in traditional foodways like those associated with the MedDiet, publishing a book entitled *The Benevolent Bean*, which encouraged readers in the United States to follow the practices of contemporary southern Italians and include more beans in their diets as an alternative plant-based protein source to meat that had both health and environmental benefits (Keys and Keys 1972, 18. 26). Although the Keys praised the southern Italians as bean eaters, the production of legumes has plummeted in Italy since the years in which they wrote their volume (Corrado 2022, 4).

31 Michaela DeSoucey warns that organizations, which resist a globalized homogenization of gastronomic cultures by focusing on local foodways, "must remain cognizant of their potential to promote a romanticized past that ignores the travails of peasants, farmers, and the poor, what Lauden (2004) calls `culinary Luddism'" (2010, 449). ALSIA seeks to avoid these problematic strategies by purposely examining the area's historical and contemporary traumas and encouraging collaborations between traditional farmers and scientists.

While beans in southern Italy probably represent the crop with the largest number of varieties, many of them are now in danger of extinction (Corrado 2022, 6; Ceccarelli, Grando, and Cerbino 2022, 7). ALSIA's focus on fostering the evolution of local bean cultivars recognizes the historical significance of the crop in the territory and also anticipates its importance for creating a healthier and more sustainable food system. The scientists involved in the project note that its realization is possible only because there are local farmers whose families share an affective attachment to the plants and the traditional dishes they prepare with the beans. (Ceccarelli, Grando, and Cerbino 2022, 7).

The kind of plant breeding practiced by ALSIA, known as "participatory genetic betterment," is based on a collaborative method developed in different countries of the global South by the geneticist Salvatore Ceccarelli, who works closely with the association (Ceccarelli, Grando and Cerbino 2022, 18-21; Bevilacqua 2022, 180; Boscolo and Tola 2020, 16-17). Local farmers within the network plant a mixture of bean seed varieties, both heritage and modern, so that the polycultural populations can evolve differently depending on the geographic and climatic conditions of the farms. While the genetic breeding of the Green Revolution focused on developing uniformity and monoculture, which led to a dramatic reduction of agricultural biodiversity, participatory genetic betterment mimics the cyclical process of traditional farmers who choose the seeds and varieties (including new ones) from the dynamic diversity of mixed populations that are particularly well adapted to their environment, changing climatic conditions, and tastes. (Ceccarelli, Grando and Cerbino 2022, 13; Bevilacqua 2022, 35; Boscolo and Tola 2020, 18-19).

Genetic breeding becomes participatory when different members of the community collaborate in the cyclical cultivation, assessment, and selection of the varieties; in the case of ALSIA, farmers, chefs, and students evaluate the plants as well as the traditional foods that chefs create with them. Innovating an ancestral tradition, local farmers choose which varieties to plant based on the information they have gathered in the fields, in the kitchen, and in laboratories. As Teti remarks, a renewed focus on traditional food systems does not mean ignoring science and technology, but rather requires "new forms of exchange between science and culture. A reintegration of agriculture and food within a social, cultural, economic, and environmental framework that may result in long-term sustainability" (Teti 2015, 131). It is a dynamic collaboration that helps both the biological and cultural genome evolve into the future.

Conclusion

As the two examples above illustrate, we will not create a future of healthier and more sustainable foodways based solely on the scientific authority of universal food pyramids or the consumption of olive oil. Healthier and more sustainable food futures depend on respecting the ways in which food connects us to each other and the environments in which we are embedded. This is a nonexclusionary approach that encourages us to question classist, ethnic, and racial hierarchies, among others, in order to better protect biological and cultural diversity in our food systems. It also fosters both local and transnational exchanges between the place-based knowledge of traditional farmers and culturally embedded scientific research, which leads to innovative ways of developing more diverse, and thus, more resilient food systems. Rather than mythologizing the local food systems of southern Italy connected to the MedDiet, with the risk of promoting the kind of exclusionary gastronativism that Parasecoli and Grandi challenge, re-placing them, together with their histories of trauma and survival, may help us imagine their regeneration as well as the future evolution of Indigenous and traditional foodways across the planet.

Bibliography

Anderson, John J. B. (John Joseph Baxter), and Marilyn C. Sparling. *The Mediterranean Way of Eating: Evidence for Chronic Disease Prevention and Weight Management*. Boca Raton: Taylor & Francis, 2014.

Baer-Sinnott, Sara. "Happy 25 Years to the Mediterranean Diet Pyramid!" Oldways, January 18, 2018. https://oldwayspt.org/blog/happy-25-years-mediterranean-diet-pyramid.

Bevilacqua, Piero. *Breve storia dell'Italia meridionale: Dall'Ottocento a oggi*. Rome: Donzelli, 2005 (1993).

Bevilacqua, Piero. *Un'agricoltura per il futuro della terra. Il sistema di produzione del cibo come paradigma di una nuova era*. Bra: Slow Food Editore, 2022.

Biancofiore, Tecla. "`La dieta mediterranea invenzione americana? Falsità assoluta': la stoccata del sindaco di Pollica a Grandi", video, April 6, 2023, 3:39, la Repubblica. Repubblica.it, 2023. https://video.repubblica.it/il-gusto/dossier/dieta-mediterranea-cilento-alimenti-libri/la-dieta-mediterranea-invenzione-americana-falsita-assoluta-la-stoccata-del-sindaco-di-pollica-a-grandi/441909/442874

Boscolo, Marco and Elisabetta Tola. *Semi ritrovati: Viaggio alla scoperta della biodiversità agricola*. Turin: Codice edizioni, 2020.

Burt, Kate. "The Whiteness of the Mediterranean Diet: A Historical, Sociopolitical, and Dietary Analysis Using Critical Race Theory." *Journal of Critical Dietetics* 5.2 (2021): 41-52.

Cajete, Gregory. *A People's Ecology: Explorations in Sustainable Living*. Santa Fe, N.M: Clear Light Publishers, 1999.

Ceccarelli, Salvatore, Stefania Grando, and Domenico Cerbino. "I miscugli evolutivi di fagioli rampicanti in Basilicata." *I Quaderni dell'ALSIA*, 17 (2022): 5-68.

Corrado, Giandomenico. "Food History and Gastronomic Traditions of Beans in Italy." *Journal of Ethnic Foods* 9.6 (2022): 1-22.

Cresta, Massimo. "Dal biologico al sociale: considerazioni conclusive sugli studi svolti dal 1954 al 1997, e nuove prospettive della ricerca nutrizionale nel Cilento." *1954-1997: Quarantatre' anni di storia dell'alimentazione in un'area del Cilento. Rivista di Antropologia* 76 (1998): 147-156.

Cresta, Massimo, and Vito Teti. "The Road of Food Habits in the Mediterranean Area between Biology and Culture." *Proceedings of the International Congress. The Road of Food Habits in the Mediterranean Area*. Naples, May 26-30 1997, edited by Massimo Cresta and Vito Teti. Rivista di Antropologia 76 [supplement] (1998): 1-6.

Cresta, Massimo, E Cialfa, G. Barberini, P. Calandra, C. Comedini, A.M. De Majo, L. Gradoni. M. Gramiccia, M.A. Mariani, P. Passarello, P. Pozio, A.R. Pulicani, M. Ricci and F. Vecchi. Rofrano 1954-1980. *Una analisi delle relazioni tra anomalie di sviluppo, malessere alimentare e sociale, e situazione biologica della popolazione in un'area marginale tipica del Mezzogiorno*. Rome: Istituto Nazionale della Nutrizione, 1982.

De Luca, Erri and Valerio Galasso. *Spizzichi e Bocconi*. Milan: Feltrinelli, 2022.

DeSoucey, Michaela. "Gastronationalism: Food Traditions and Authenticity Politics in the European Union." *American Sociological Review*, 75.3 (June 2010): 432-455.

Formica, Annibale. "La comunità del cibo e della biodiversità di interesse agricolo e alimentare dell'area sud della Basilicata (Pollino-Lagonegrese)." *I Quaderni dell'ALSIA*, 16 (December 2020): 15-21.

FUNDACIÓN DIETA MEDITERRÁNEA, 2010. "¿Qué Es La Dieta Mediterránea?" FUNDACIÓN DIETA MEDITERRANEA. Accessed December 21, 2023. https://dietamediterranea.com/nutricion-saludable-ejercicio-fisico/#pyramid.

Gabaccia, Donna R. *We Are What We Eat: Ethnic Food and the Making of Americans*. Cambridge: Harvard University Press, 1998.

Gabaccia, Donna R. *Italy's Many Diasporas*. Seattle: University of Washington Press, 2000.

Granai del Mediterraneo. Video archive. Edited by the MedEatResearch Centro di Ricerche Sociali sulla Dieta Mediterranea of the University of Naples SOB.
https://www.granaidellamemoria.it/index.php/it/archivi/granai-del-mediterraneo-cura-delluniversita-di-napoli-sob

Grandi, Alberto. *Denominazione di origine inventata. Le bugie del marketing sui prodotti tipici italiani*. Milan: Mondadori, 2020 (2018).

Grandi, Alberto, and Daniele Soffiati. "Episodio 43: La dieta mediterranea l'ha inventata un Americano," October 19, 2023, in Doi - *Denominazione Di Origine Inventata Su Apple Podcasts.*" produced by OnePodcast, Apple Podcasts, Podcast, audio, 00:28:00. https://podcasts.apple.com/it/podcast/episodio-43-la-dieta-mediterranea-lha-inventata-un/id1607529422?i=1000631819036.

Grosso, Giuseppe and Fabio Galvano. "Mediterranean Diet Adherence in Children and Adolescents in Southern European Countries." *NFS Journal* 3 (2016): 13–19.

Gruppo di Lavoro, Sistemi e Politiche Locali del Cibo. Tavolo Nazionale Sistemi Alimentari

RAPPORTO I Sistemi e Le Politiche Locali Del Cibo Come Strumento per La Trasformazione Verso Sistemi Alimentari Sostenibili. Politiche Locali del Cibo, March 2019. https://www.politichelocalicibo.it/wp-content/uploads/2023/01/Report_GdL_sistemi_politiche_locali-1.pdf.

Hinzey, Elaine, and Shanley Chien. "Mediterranean Diet Health and Nutrition - US News Health." *U.S. News & World Repor*t, October 13, 2023. https://health.usnews.com/best-diet/mediterranean-diet/health-nutrition.

JR and Alice Rohrwacher, directors. "Omelia contadina," November 16, 2020, video, 9:55, https://www.youtube.com/watch?v=QPc72k9rkL8.

Kashdan, Harry Eli. "Anglophone cookbooks and the making of the Mediterranean." *Food and Foodways* 25.1 (2017): 1-19.

Keys, Ancel. *Seven Countries. A Multivariate Analysis of Death and Coronary Heart Disease*. Cambridge: Harvard University Press, 1980.

Keys, Ancel. "From Naples to Seven Countries: A Sentimental Journey," Progress in *Biochemical Pharmacology* 19 (1983): 1-30.

Keys, Ancel. "Mediterranean Diet and Public Health: Personal Reflections." *The American Journal of Clinical Nutrition* 61 suppl. (1995): 1321S-1323S.

Keys, Ancel and Margaret. *Eat Well and Stay Well*. Garden City, New York: Doubleday, 1959.

Keys, Ancel and Margaret. *The Benevolent Bean*. New York: The Noonday Press, 1972 (1967).

Keys, Ancel and Margaret. *How to Eat Well and Stay Well the Mediterranean Way. Garden City*, New York: Doubleday, 1975.

Kimura, Aya H., Charlotte Biltekoff, Jessica Mudry, and Jessica Hayes-Conroy, "Nutrition as a Project." *Gastronomica* 14.3 (2014): 34-45.

Lauden, Rachel. "Slow Food: The French Terroir Strategy, and Culinary Modernism." Food, *Culture & Society* 7.2 (2004): 133-144.

Maffia, Angela, Maria Pergola, Assunta Maria Palese, and Giuseppe Celano. "Environmental Impact Assessment of Organic vs. Integrated Olive-Oil Systems in Mediterranean Context." *Agronomy (Basel)* 10, no. 3 (2020): 416, accessed December 20, 2023, https://www.mdpi.com/2073-4395/10/3/416.

Melkozernova, Arina, Juliann Vitullo, Ryan Dubnicek, Daniel J. Evans & Boris Capitanu. "Telling a Story with Data: Shift in the Mediterranean Diet's dis-

course from 1950-2020." *Poster, Computational Humanities Research Conference*, December 6-8, Paris, France.

Menelay, Anne. "The Olive and Imaginaries of the Mediterranean." *History and Anthropology* 31.1 (2020): 66-83.

Mintz, Sidney and Sharda Nayak. "The Anthropology of Food: Core and Fringe in Diet." *India International Centre Quarterly* 12.2 (1985): 193-204.

Moffat, Tina, and Shanti Morell-Hart. "How the Mediterranean Diet Became No. 1 - and Why That's a Problem." *The Conversation*, The Conversation US, Inc. Last modified March 19, 2020, https://theconversation.com/how-the-mediterranean-diet-became-no-1-and-why-thats-a-problem-131771.

Morinelli, Delia, interview by Elisabetta Moro, *Granai del Mediterraneo*, May 8, 2013, transcript and recording, Center for Social Research on the Mediterranean Diet, Digital Archive Curated by University of Naples, SOB. 2013, accessed on April 30, 2023. https://www.granaidellamemoria.it/index.php/it/archivi/granai-del-mediterraneo-cura-delluniversita-di-napoli-sob/delia-morinelli-cuoca-di-ancel-e-margaret-keys

Moro, Elisabetta. *La dieta mediterranea. Mito e storia di uno stile di vita*. Bologna: Il Mulino, 2014.

Nabhan, Gary Paul. *Gathering the Desert*. Tucson: University of Arizona Press, 1985.

Nabhan, Gary Paul. "Interspecific Relationships Affecting Endangered Species Recognized by O'Odham and ComcÁac Cultures." *Ecological Applications* 10:5 (2000): 1288–1295.

Nathan, Vetri. Marvelous Bodies. *Italy's New Migrant Cinema*. West Lafayette, Indiana: Purdue UP, 2017.

Nestle, Marion. "Mediterranean Diets: Historical and Research Overview." *The American Journal of Clinical Nutrition* 61 (suppl) 1995: 1313S-1320S.

Nestle, Marion. *Unsavory Truth. How Food Companies Skew the Science of What We Eat*. New York: Basic Books, 2018.

Ortiz, Simon. "Indigenous Sustainability: Language, Community Wholeness, and Solidarity." In *Traditional Ecological Knowledg*e, edited by Melissa K. Nelson and Daniel Schilling, 85–94. Cambridge: Cambridge UP, 2018.

Parasecoli, Fabio. *Gastronativism. Food, Identity, Politics*. New York: Columbia University Press, 2022.

Ridolfi, Roberto, Sandro Dernini, Jamie Morrison, Arni M. Mathiesen, and Roberto Capone. "Changing Route: Common Action on Food Systems Transformation in the Mediterranean." *New Medit*, 3/2020: 119-128.

Sahyoun, Nadine R. and Kavitha Sankavaram. "Historical Origins of the Mediterranean Diet, Regional Dietary Profiles, and the Development of Dietary Guidelines." In *Mediterranean Diet, Nutrition and Health*, edited by D. F. Romagnolo and O.I. Selmin, 43-56. Cham: Springer, 2016.

Silva, A. J. M. da. "From the Mediterranean Diet to Diaita: The Epistemic Making of a Food Label." *International Journal of Cultural Property* 25 (2018): 573-595.

Stano, Simona. "Glocal Food and Transnational Identities: The Case of the Mediterranean Diet." In Cross-Inter-Multi-Trans – Proceedings of the 13th World Congress of the International Association for Semiotic Studies (IASS/AIS), edited by Audrone Daubariene, Simona Stano, and Ulrika Varankaite, 450-459. Kaunas: ASS Publications and International Semiotics Institute, 2018.

Daubariene, Simona Stano, and Ulrika Varankaite, 450-459. Kaunas: ASS Publications and International Semiotics Institute, 2018. https://hdl.handle.net/2318/1685259

Teti, Vito. *Fine pasto. Il cibo che verrà*. Turin: Einaudi, 2015.

Teti, Vito. "Il sentimento dei luoghi, tra nostalgia e futuro." In *Riabitare l'Italia. Le aree internetra abbandoni e riconquiste*, edited by Antonio De Rossi, 191-206. Rome: Donzelli, 2018.

Teti, Vito. *La restanza*. Turin: Einaudi, 2022.

Tosi, Virgilio. "Inchiesta Alimentare a Rofrano," video, 9:50, Archivio Storico Luce, accessed December 21, 2023, https://patrimonio.archivioluce.com/luce-web/detail/IL3000088466/1/-49255.html?startPage=0&jsonVal=.

Tracy, Sarah W. "A Global Journey - Ancel Keys, the FAO, and the Rise of Transnational Heart Disease Epidemiology 1949-1958." T*he International History Review* 41 (2019): 372-390.

Truninger, Monica and Dulce Freire. "Unpacking the Mediterranean Diet." In *Food Between the Country and the City: Ethnographies of a Changing Global Foodscape*, edited by N. Domingos, J.M. Sobral, and H. West, 191-206. London: Bloomsbury, 2013.

Valeriote, Elena. "The Importance of Restoring Ancestral Seeds to Indigenous Communities." *PBS SoCal*, July 6, 2022. http://www.kcet.org/shows/the-migrant-kitchen/seed-rematriation.

Vigna, Giovanni. "Financial Times Contro La Cucina Italiana, Coldiretti e Salvini Replicano: 'Un Attacco Surreale.'" *Corriere della Sera*, March 27, 2023. https://www.corriere.it/cook/news/23_marzo_27/fake-news-cucina-italiana-coldiretti-salvini-grandi-un-attacco-surreale-ca304560-cc12-11ed-a33d-c3013907eff7.shtml?refresh_ce.

Willett, Walter, Johan Rockström, Brent Loken, Marco Springmann, Tim Lang, Sonja Vermeulen, Tara Garnett, David Tilman, Fabrice DeClerck, Amanda Wood, and et al. "Food in the Anthropocene: The EAT-Lancet Commission on Healthy Diets from Sustainable Food Systems." *The Lancet* 393 (2019): 447–92.