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ricerche, riflessioni e discipline
a confronto**

a cura di
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THE RELEVANCE OF THE FOOD DESERT CONCEPT AND ITS OPPOSITE, THE FOOD OASIS, FOR THE URBAN THEORY. SOME INSIGHTS FROM THE CASE OF THE TURIN DISTRICT “SAN SALVARIO”

1. INTRODUCTION. – In the last 15 years, the concept of food desert has gained a specific relevance in the theorisation of urban development (Shaw, 2006; 2014). Academics, policymakers and journalists increasingly started using it to describe inhabited urban areas suffering from limited/difficult access to healthy food products. Food deserts are thus helpful to detect – and localise – conditions of food insecurity and social injustice within the urban area. However, in doing that, the attention to urban food deserts has relied almost exclusively on the socioeconomic and spatial dimensions of the urban market (Russell and Heidkamp, 2011). Rarely do the existing studies on the food deserts include an in-depth analysis of the quality and sustainability of the local food supply. The food desert emerges when a spatially circumscribed portion of the urban society registers opportunities – that are far lower than the rest of the urban population – for a healthy diet. In order to overcome such a gap, in the paper, food deserts are introduced to identify portions of the urban area characterised by the scarce availability of healthy and varied food products, i.e. products with a high level of agricultural biodiversity. The paper also uses qualitative analysis of the food offered in the urban district of San Salvario (Torino, Italy) to develop some preliminary considerations and policy suggestions.

In particular, the paper focuses on the implications of adopting the concept of food oasis in the Italian debate on cities and urban development. Section 2 presents the two opposite concepts of a food desert and food oasis and critically discusses the tendency to cope with them from a mere economic perspective. Section 3 compares different ways to access food products in the urban environment: hypermarkets, supermarkets, minimarkets, grocery shops, street markets, ethnic (vegan) and organic shops. Section 4 presents the methodology used to analyse a specific type of urban food oasis, thought to apply to the case of an Italian/European small metropolis. Section 5 presents the main features of the San Salvario district in Turin and illustrates the analysis results. Finally, Section 6 presents some preliminary conclusions and policy suggestions.

2. FOOD DESERTS AND FOOD INSECURITY. – By the mid of the 90s, healthy food and the right to a healthy diet have risen as a rising issue in development and urban studies that have gained greater and greater attention. Probably coined in the early 1990s, the term “food desert” firstly appeared in a government publication by the Low-Income Project Team in 1995 (Beaumont *et al.*, 1995). Since then, the food desert concept has been increasingly used in the literature to describe a populated urban area with diffused unhealthy dietary regimes and difficult access to healthy food. Urban food deserts are portions of the urban environment where junky food is the only available and affordable option.

It resulted from a specification of the “urban desert” concept that J. Baines (1973) used to describe portions of the urban area lacking community facilities. According to the Low-Income Project Team (1996), for instance, food deserts identify “areas of relative exclusion where people experience physical and economic barriers to accessing healthy food” (2002, p. 436). In the same years, some leading UK newspapers and magazines, such as *The Independent* (11 June 1997), *The Observer* (13 September 1998) and *The Guardian* (17 March 1999), also agreed in defining urban food deserts as areas inside cities where nutritious food (fresh fruit and vegetables, daily handmade food) is neither available nor accessible or affordable. The local shops selling this type of food are often up to 60% more expensive than supermarkets, and the poorest families cannot afford them.

From the point of view of a local authority, food deserts thus emerge as an issue of social justice, which may also damage public health. Limited access to healthy food can determine an increase in the local health problems and, consequently, an increase in health care costs. From scholars’ point of view, the geography of



food deserts also implies a relevant issue of spatial justice as it helps detect large communities of underserved citizens inside the urban system. Typically, food deserts emerge in residential blocks distant from supermarkets and limited in access to the local public transport services. In these blocks, residents often buy food from corner stores, whose offer rarely is varied and healthy.

As a consequence of the affirmation of the food desert concept in the public debate, an increasing number of urban agendas started recognising the need for providing adequate food to everyone in the city, low-income and marginalised districts included (Beaumont *et al.*, 1995). In the USA and the UK – where the culture of healthy dietary regimes is weak, and the offer of junky food is more diffused – the accessibility to healthy food has become a key policy issue. It is the case, for instance, of the US Federal food policy that started in 2009 (Federal Special Supplemental Nutrition Program for Women, Infants and Children – WIC) to intervene in the local food offer to reduce direct and indirect health expenses. Meanwhile, the conceptualisation of food access has broadened since the year 2000, including a wide range of biological, economic, functional, physical and social factors. The Foresight Report (Butland *et al.*, 2007) by the UK Government Office for Science, for instance, published a comprehensive study indicating the positive and negative effects on diet and obesity of many different environmental/local factors.

3. THE US-CENTRED APPROACH TO THE FOOD DESERT CONCEPT. – Food deserts define delimited portions of the urban space (districts, blocks) where the management of the final portion of the food supply chain is problematic from several points of view. For example, the US Department of Agriculture considers a neighbourhood a food desert if at least a fifth of the residents live in poverty and a third live more than a mile from a supermarket in urban areas or more than 10 miles in rural areas, where residents are more likely to have cars.

Although scholars and policymakers tend to present the problem from an economic perspective uniquely (i.e. the cost of healthy food), problematic is the quality and variety of the offered food and the features and geography of the local delivery network.

In food deserts, the food is unavailable because its cost overcomes the economic means of most individuals living in it. There is also a problem with value scales. However, the government's rationale for food deserts is more economical than social or cultural. The attention goes primarily to the reduction of health care expenses. The reduction of social injustice comes afterwards.

Indeed, diseases associated with the frequent consumption of an unhealthy (processed or “junky”) and unvaried diet (balanced in terms of proteins and vitamins) are several and varied. Research has shown that a lack of access to healthy foods contributes to health problems, such as obesity and diabetes. Poor diet is one of the most significant risk factors for death and illness in the United States, responsible for more than 600,000 deaths in 2010 alone. Food deserts thus imply more health care expenses and a loss of human capital and productivity, which is even more dramatic if we consider that the consequences of living in food deserts are significant for pregnant women and children at nutritional risk (Cummins and Macintyre, 2002; Shaw, 2002; 2014).

Nevertheless, the problem does not concern unhealthy food choices and fast foods only as a US-centered approach to the problem may suggest. Moreover, applying such an approach to the very diverse case of European cities may be misleading.

Firstly, it might lead to considering opening new supermarkets or large grocery stores as the best solution against food desertification. Based on the observed correlation between the condition of living in a food desert and the likelihood of suffering from obesity, the US government has spent more than \$500 million building supermarkets in urban food deserts since 2011. However, new super-markets risk being ineffective without promoting a healthy food culture among the residents and the local retailers. Supermarkets can be formidable retailers of healthy food. Nevertheless, evidence about the effects of investments in full-service supermarkets remains scarce (Dubowitz *et al.*, 2015). Also, policy interventions against food desertification in the US often resulted in being excessively narrow-minded. For instance, they rarely intervene in the urban food chain, which is crucial to diffuse generalised awareness towards the interrelated objectives of a varied healthy diet, biodiversity protection, and the promotion of local products and the local markets (e.g. zero km farmers).

Secondly, there is the risk to ignore other relevant factors. For instance, proximity to shops selling fresh, unprocessed food can make a big difference in the food preferences of individuals who do not have the opportunity to use a car for their journeys/trips. Even more fundamental is the creation of shared local food culture. According to this, in the analysis of food preferences, food communities and districts' cultural and spatial dimension acquires stronger and stronger importance, and qualitative sociological analysis rises as critical.

4. FROM FOOD DESERTS TO FOOD OASES. – The main distinguishing features of food deserts are:

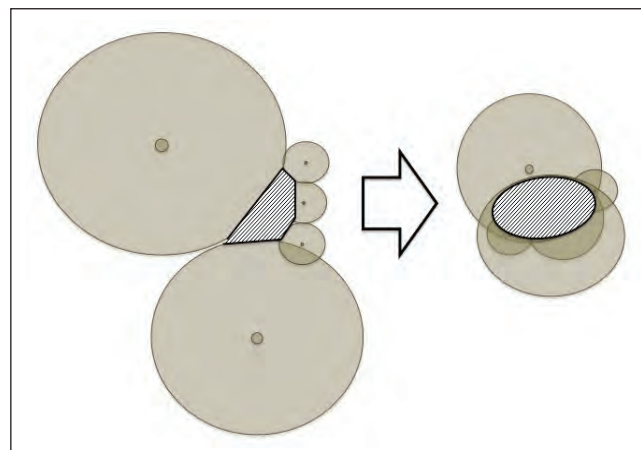
- urban localisation. Urban deserts define portions of urban space, above all in inner cities;
- health implications. The type of food available in food deserts presents unhealthy features that correlate with the insurgence of several health problems, such as hypertension, obesity and diabetes;
- social implications. Food deserts determine social injustice as only the wealthier residents can afford a car and use it to reach larger peri-urban supermarkets selling healthy food at lower prices. Car-less residents need to rely on corner shops, where the prices are high, and the food is almost always processed.

Thus, the concept of food desert emerges as a critical concept to study how, in the urban context, the poor and the deprived experience more than the rich the inaccessibility to high-quality food; but with some caveats:

1. the food desert as an analytical category is solid at a local scale; at a broader scale, it losses relevance. This is because it cannot account for the global changes in food provision and eating habits.
2. it measures the accessibility to healthy food only from the point of view of its availability at the local scale (thus focusing on the economically restrained residents with limited mobility and purchase capacity) rather than the food quality, variety, and price.

Partly better is the concept of “food insecurity”. Widespread above all in the Anglophone countries (USA, Canada, Australia, and New Zealand – less in the UK), it indicates the inability of an individual or household to be sure that they will be able to afford to access a healthy and adequate diet for the foreseeable future. It overcomes the urban focus to discuss access to healthy food by all individuals, not only inner-city residents. For instance, a stream of literature dealing with food insecurity in the USA has focused on the distance rural people have to travel to a store selling healthy food. Conversely, the Food Conservation and Energy Act, passed by the US Congress in 2008, still defined “food deserts” as areas with limited access to affordable and adequate food, mainly localised in urban areas of lower-income neighbourhoods.

What food is healthy? What food is adequate? A healthy diet requires fresh, nutritious and safe food (organic or not polluted). An adequate diet must also be varied, diverse, accessible and sustainable. The concept of food oasis can thus apply to study where, within a given urban context, the opportunity/likelihood of developing a healthy diet. Operationally, it indicates an urban settlement where supermarkets, corner shops, or food markets offer low prices and high-quality food standards in a little over a mile or on a single avenue.



Source: author's elaboration

Fig. 1 - From food deserts to food oases.

5. ITALIAN FOOD OASES. – Italy is one of the countries with the highest consumer awareness of healthy diets and understanding of food quality (both among citizens, firms and institutions). Also, it holds one of the most extensive food supplies in the world (Censis and Coldiretti, 2010). In Italy, food deserts in Italian cities are thus rare. Instead, there are signals of the presence of food districts in several urban centres consistent with the theorisation of the food oasis.

More specifically, in Italy, these potential food oases tend to be characterised as follows:

- are not limited to urban areas with supermarkets (Walker *et al.*, 2010);

- assume the form of districts, both central and peripheral or rural, with easy availability of high-quality food, i.e. fresh (not processed, local/seasonal), diversified (in types) and varied (in food cultivars/species);
- play a dramatic role in promoting healthy dietary regimes, quality of life and local development.

Certainly, unhealthy dietary regimes exist also in contexts characterised by a diversified healthy offer (e.g. increasing obesity levels amongst schoolchildren). However, compared to food deserts, the concept of Italian food oases can be:

- more adaptive to non-US urban contexts;
- more effective in order to promote a new food culture;
- more effective in order to promote dietary regimes reducing health care costs and early deaths;
- more scalar (local and global) and systemic (biodiversity, environmental protection, promotion of local markets) effects.

In the next paragraph, the food district San Salvario in Torino (Italy) analysis allows the definition of a methodology for detecting and promoting urban food oases.

6. THE CASE OF THE SAN SALVARIO DISTRICT IN TORINO. – As in the study conducted between 2006 and 2012 in Baltimore under the auspices of the Johns Hopkins Center for a Livable Future, the paper assessed healthy food availability by assigning points (max possible 18) to the number of healthy food choices/options on the shelves of the corner shops and supermarkets of a given urban district. Coherently with this study, the analysis in San Salvario also showed that increases in healthy food are most outstanding in the portions of the district with a more considerable ethnic diversity.

San Salvario is an ancient district (1800 origins) of Torino, close to the train station (Porta Nuova), the park and the city centre. It has multi-ethnic (North Africa, China, Philippines, etc.) and young residents. It is an inclusive and lively district (with some inner conflicts due to criminality and the uncontrolled development of the night-time economy). It hosts the second largest open-air market in the city (Madama Cristina Square). However, the recent renewal (art, design, fashion, etc. bars, restaurants) started in 2005 turned it into a “movida district”, with some gentrification and the proliferation of night-time playscapes (Rota and Salone, 2010).

Box: Methodology

- Qualitative & N.A. analysis of healthy food accessibility
- Urban districts as the scale of analysis (J Koelemaij, S Valenta, 2012)
- Healthy (high quality) food: fresh, local, varied, diversified
- Fresh fruits and vegetables as the object of analysis
- Accessible food: overall availability of food types and varieties/cultivars; availability of markets, supermarkets and corner shops, classified based on their offer of fresh fruits and vegetables
- Km-zero (products from the region)
- Diversified (both fruits and vegetables and at least eight types – which is the average of minimarkets/corner shops)
- Varied (more than one cultivar per at least three types of fruits or vegetable types – which is the average of minimarkets/corner shops)
- Interviews with residents addressed detecting their purchasing preferences (general and in the district) and the relationship between the local offer and the local dietary regimes

The study analysed 366 ground floor shops in 44 blocks of the northern portion of San Salvario (average area: 3,200 square kilometres; see Fig. 2) according to two different periods: May 2016 and May 2021.

In 2016, 79% of the considered ground shops were selling food. Moreover, they characterise as follows:

- 41% were cafes/Bistrot/restaurants;
- 20% were night-time bars and restaurants;
- 11% were open-air stands (Madama Cristina Square market);
- 3% were supermarkets;



Source: Author's elaboration of the basis of Google map.

Fig. 2 - San Salvador: the area analysed

- 4% were minimarkets/corner shops or special shops (bio, vegan, ethnic).

In 2021, the ground shops selling food grew up to 82% of the panel, but the distribution of typologies remained stable:

- 43% were cafes/Bistrot/restaurants;
- 24% were night-time bars and restaurants;
- 9% were open-air stands (Madama Cristina Square market);
- 3% were supermarkets;
- 3% were minimarkets/corner shops or special shops (bio, vegan, ethnic).

As a result, the study revealed a diversified and varied overall offer (n. observed varieties concerning the varieties listed in the national catalogues of plants, vegetables, fruits): potatoes (8 of 53), carrots (2 of 13), onions (4 of 65), garlic (2 of 7), salad (7 of 63), tomatoes (6 of 426), eggplants (1 of 56), zucchini/courgettes (2 of 89), apples (7 of 40).

The more varied types are: tomatoes, apples, pears, salads, and onions. Imported types and varieties are few: strawberries, exotic fruit, radices. Regional (km0) types and varieties are few, too: relevant seasonal products such as asparagus and peppers. Finally, there are extremely few certified organic fruits and vegetables (in just one corner shop and one supermarket).

7. CONCLUSIONS. – Coherently with the Baltimore study, San Salvador's food offer analysis showed that increases in healthy food are most remarkable in the portions of the district with a more extensive ethnic diversity. The case of San Salvador demonstrates how small supermarkets (e.g. Carrefour express, pam local) are the distributive channels with the most varied offer of fruit and vegetables. The market does not have to belong to large, globalised multinational companies (MNCs). The attention to un-commoditised products is due, namely, to the sensibility of the owner/manager and, consequently, to the adopted retail strategy.

Other results are:

- super-markets and open-air stands provide the most varied and diversified offer but neither organic (0%) nor km 0 (15%);
- open-air stands are also the best tools in order to construct a positive and healthy food culture;
- super-markets are also effective in providing ethnic products (more than open-air stands or corner shops);
- corner shops are the most effective in providing organic products and constructing an ethical and ethnic perspective on food;
- ethnic corner shops have an insufficient offer of fresh fruit and vegetables, rarely ethnic, never organic, nor zero km;
- trade-off between variety and green (organic/zero km) products: political choice.

Considering these results, policies regulating the local food offer may dramatically affect residents' dietary regimes and construct a positive (healthy and attractive) food culture and image. Therefore, it is an essential local development issue.

However, the study also allows for some methodological suggestions, such as the need for a shared system of principles to classify the shops according to their offer. For instance, they must have km-zero (products from the region), organic (at least 1 type), diversified (both fruits and vegetables and at least eight types), varied (at least three types of fruits or vegetables with more than one variety/cultivar) offer. Nevertheless, rules are also needed to classify the shops according to their rank/trade area attraction (Christaller's central place theory).

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SUMMARY: In the last 15 years, the concept of food desert has gained a certain relevance in the theorisation of urban development (Shaw, 2006; 2014). However, in using this concept, the attention of scholars and practitioners has tended to rely almost exclusively on the socioeconomic and spatial dimensions of the urban market (Russell and Heidkamp, 2011). The attention almost exclusively focuses on the residents' accessibility to the city's different food retailers (fast-food, supermarkets, corner shops, organic shops, local farmers' markets). Rarely the existing literature has also considered the quality and sustainability of the local food supply. In order to overcome such a gap, in the paper, the food deserts are introduced to identify portions of urban areas characterised by the scarce availability of healthy and varied food products, i.e. products with a high level of agricultural biodiversity. The paper also uses qualitative analysis of the food supply in the urban district of San Salvario (Torino, Italy) to develop some preliminary considerations and policy suggestions.

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