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# Avoiding the Local Trap

## Scale and Food Systems in Planning Research

Branden Born & Mark Purcell

During the past several years, research on food systems has become increasingly prevalent in the urban-planning literature (Pothukuchi and Kaufman 2000; Goodman 2003; Kaufman 2004; Pothukuchi 2004). For obvious reasons, food-systems research historically has been the concern of scholars in rural studies, especially among sociologists, geographers, anthropologists, and economists. However, there recently has been growing attention across the disciplines to the importance of food systems for urban dwellers, and conversely, to the important role of cities in food systems. With increasing awareness of this important link, it has become clear that planners must begin to confront questions of food safety, ecology, security, access, and distribution both inside and outside the city. Pothukuchi and Kaufman (2000), for example, detail several reasons why food systems are integral to the work of planning, including the loss of farmland on the urban fringe, water pollution problems related to agricultural land use, the importance of food-distribution centers to the urban economy, health problems related to inadequate diets (especially in poorer areas of the city), and access to food retailing for urban residents (the last problem is explored in depth by Dunkley et al. 2004). We entirely support planners' growing emphasis on food. However, this article offers planners a strong caution as they engage more with food systems and draw increasingly on food-systems research outside planning. Food-systems research and advocacy, we argue, contains a widespread and important problem that planners must avoid. Following work by Brown and Purcell, we call this problem *the local trap* (Brown and Purcell 2005; Purcell and Brown 2005).

*The local trap* refers to the tendency of food activists and researchers to assume something inherent about the local scale. The local is assumed to be desirable; it is preferred a priori to larger scales. What is desired varies and can include ecological sustainability, social justice, democracy, better nutrition, and food security, freshness, and quality. For example, the local trap assumes that a local-scale food system will be inherently more socially just than a national-scale or global-scale food system. This article argues that the local trap is misguided and poses significant intellectual and political dangers to food-systems research. To be clear, the concept of the local trap is not an argument against the local scale per se. We are not suggesting that the local scale is inherently undesirable. Rather, the local trap is the assumption that local is inherently good. Far from claiming that the local is inherently bad, the article argues that there is nothing inherent about any scale. Local-scale food systems are equally likely to be just or unjust, sustainable or unsustainable, secure or insecure. No matter what its scale, the outcomes

### Abstract

A strong current of food-systems research holds that local food systems are preferable to systems at larger scales. Many assume that eating local food is more ecologically sustainable and socially just. We term this *the local trap* and argue strongly against it. We draw on current scale theory in political and economic geography to argue that local food systems are no more likely to be sustainable or just than systems at other scales. The theory argues that scale is socially produced: scales (and their interrelations) are not independent entities with inherent qualities but strategies pursued by social actors with a particular agenda. It is the content of that agenda, not the scales themselves, that produces outcomes such as sustainability or justice. As planners move increasingly into food-systems research, we argue it is critical to avoid the local trap. The article's theoretical approach to scale offers one way to do so.

**Keywords:** food systems; scale

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produced by a **food system are contextual: they depend on the actors and agendas that are empowered by the particular social relations in a given food system.**

The food-systems literature is broad and diverse. It includes academics, advocates, and activists. Some in the literature fall prey to the local trap more fully than others. The question of **scale has been examined explicitly in the literature, and some are sensitive to the possibility that the local scale does not always result in desirable outcomes (see, for example, Hinrichs et al. 1998; Hinrichs 2000).** Nevertheless, our argument is that the literature in general is marked strongly by the assumptions of the local trap. We argue that planners must avoid the assumptions of the local trap as they engage this literature. To that end, we offer a way to theorize geographical scale that entirely precludes the local trap. Despite some concern in the food-systems literature about the local scale, we **currently lack a theoretical way to avoid the local trap.**

### The Local Trap: Problems

There are several problems with the local trap that we contend should give pause to planners as they move into food systems. The first is the most basic: The assumption that the local is desirable does not always hold. Mounting case-study evidence suggests that **in some cases, local-scale food systems produce one outcome (e.g., greater democracy), and in other cases, they produce very different outcomes (e.g., oligarchy).** The local trap, therefore, can seduce planners with an incorrect assumption. Second, the local trap conflates the scale of a food system with desired outcome. In common planning language, **it confuses ends with means, or goals with strategies. It treats localization as an end in itself rather than as a means to an end, such as justice, sustainability, and so on.** Planners, therefore, can become sidetracked pursuing localization and become distracted from pursuing their real goal, whatever that might be. At the very least, this dynamic will cause planners to lose sight of their goal. In the worst case, it will subvert their goal, as when a planner who desires greater food democracy pursues localization that results in more oligarchical decision making. Third, **the local trap obscures other scalar options that might be more effective in achieving a desired outcome.** For example, a planner who assumes that localization necessarily leads to more sustainable agriculture will fail to pursue the option of, say, a European Union-wide law that mandates more sustainable agricultural practices in member countries (Goodman 2003). Thus, the local trap can blind planners to the most effective strategy for achieving desired ends.

Among some scholars in rural studies, there has been **growing concern about the assumption that local is inherently good (Hinrichs 2003; Weatherell et al. 2003; Winter 2003).** In one notable shift, an author who previously favored the local

(Kloppenborg et al. 1996) shifted course and laid early groundwork for our current argument (Hinrichs et al. 1998). This concern is borne largely by the growing body of empirical **evidence that local-scale food systems often result in undesirable outcomes such as environmental degradation or exacerbated inequality.** A typical narrative here is that the researcher was surprised to find that a local food system resulted in negative outcomes and concludes that we should be cautious about advocating local solutions. While these empirical cautions are a promising opening, we argue that they do not go far enough because they do not yet offer a theoretical solution to the local trap. Each empirical case in which local-scale systems result in undesirable outcomes demonstrates that the local is not always better, but it still leaves open the fall-back position that the local tends to be more desirable, even if it is not always so. The empirical findings of Winter (2003), for example, have not yet moved them beyond the local trap. For them,

*it is open to question whether we can equate . . . the turn to localism as the first steps towards an alternative food economy which will challenge the dominance of globalized networks and systems of provision and herald a more ecologically sound agricultural sector. (Winter 2003, 31, emphasis added)*

We argue that **it is not open to question whether we can equate localism with ecologically sound outcomes. We never can equate a scalar strategy with a particular set of outcomes.** The position of Winter et al. leaves essentially unchanged the dangers of the local trap because they leave open to question whether the localization should be seen as an end in itself that usually will lead to desirable outcomes. In that case, all the problems mentioned above—deflection of attention, unintentional exacerbation of problems, and blindness to better alternatives—still would apply. Instead of empirical cautions, this article offers a theoretical obviation of the local trap. We draw on recent work in political and economic geography to construct a theoretical approach to scale that stresses the social construction of scale. That is, **scale is not ontologically given but socially constructed; therefore, there can be nothing inherent about any scale.** No scale can have an eternal extent, function, or quality. In this view, scale is not an end goal itself; it is a strategy. **Scale is a means that may help achieve any of many different goals. Which goal is achieved will depend not on the scale itself but on the agenda of those who are empowered by the scalar strategy.** Localizing food systems, therefore, does not lead inherently to greater sustainability or to any other goal. It leads wherever those it empowers want it to lead.

For planners interested in food systems, this new theoretical position encourages a very different research agenda than the one currently being pursued in food-systems research. Accepting that there is nothing inherent about scale makes it unnecessary to carry out extensive empirical work to investigate

if localization is inherently desirable. Rather, **the research agenda must be to examine the agendas of those who pursue scalar strategies.** The question for planners is not whether they should desire localization in food systems but whether they desire to advance the agendas of those who will be empowered by a given localization or whether other scalar strategies (e.g., globalization) would produce better results. And because there is nothing inherent about scale, the question of who is empowered by localization (or globalization) will vary by case. The particular social and ecological outcomes of each rescaling never must be assumed but always subjected to critical analysis. The next section lays out our theoretical argument about scale and develops why it solves the problems of the local trap.

### ► Scale Research in Geography

Along with space, place, and territory, scale is a foundational concept in geography. However, perhaps because it is the most abstract of those concepts, it traditionally has been the least extensively theorized and examined (Jonas 1994; Harvey 1996). But during approximately the past ten years, research on geographical scale has grown considerably. Most of this new work has been undertaken by political and economic geographers concerned about understanding the recent rapid changes in the world economy that were touched off by the crises of the early 1970s. As capital extended its operations beyond the national scale, effectively globalizing production, and as the nation-state's regulatory mechanisms struggled to respond, it seemed clear that the global political economy was being remade by a massive and important process of rescaling. As part of the effort to understand this rescaling, geographers undertook a new theoretical engagement with scale starting in the late 1980s. While this work is diverse, we argue that there is widespread agreement on at least three key principles about scale: **Scale is socially produced, scale is both fluid and fixed, and scale is a fundamentally relational concept.**

#### Social Construction: Scale Is a Strategy

Perhaps the most important theoretical claim is that **geographical scale is socially produced.** That is, any given scale—for example, the local, the regional, the national, or the global—is produced socially through social and political struggle (Delaney and Leitner 1997; Kelly 1997). **Therefore, the particular qualities of a given scale, such as its extent, its function, or its interactions with other scales, are never eternal and ontologically given** (Smith 1992, 1993). Rather, they are contingent: They will result from particular political struggles among particular actors in particular times and places

(Marston 2000). While this principle of social construction is fairly common to the social sciences, what flows from it is, we argue, significantly destabilizing for the local trap. **If we take this principle seriously, we cannot assume a priori anything about the characteristics of a particular scale or scalar arrangement.** For example, we cannot assume that local food systems are inherently more ecologically sustainable than global ones, that locally grown produce is healthier than produce grown elsewhere, or that local control of agricultural decision making is inherently more democratic than, say, national-scale control.

In each case, the outcome of the scalar arrangement **depends not on the inherent qualities of a particular scale (which do not exist) but on the particular agendas that are empowered by the arrangement.** Thus, local food systems can be sustainable or not, depending on the particular practices that agents pursue. The same is true of global food systems. Just because the current global food system is capitalist, industrial, and unsustainable does not mean that all global systems exhibit these failings or that the current food system always will be so. This last point has been recognized by social-movement and food-system theorist Robert Gottlieb: “The dominant food system . . . is not immovable; its outcomes are not inevitable” (2001, 258). This principle of social construction means that the **best way to think about scale is not as an ontological entity with particular properties but as a strategy, as a way to achieve a particular end.** Thus, localization is a scalar strategy that can result in a range of outcomes—for example, social justice, oppression, food security, ecological destruction—depending on which agenda is advanced as a result of the strategy. If scale is a strategy, it is not a goal and it should not be thought of as such. **Therefore, it is social justice (or sustainability or democracy, etc.), not localization or globalization, that must remain the focus for those planners who seek to change the current structure of food systems.**

#### Scale Is Both Fluid and Fixed

If scales are not ontologically permanent but are produced through social struggle, it follows that they are not permanent. Rather, **scales and scalar relationships are constantly in the process of being made and remade.** Erik Swyngedouw (1997), for example, is particularly insistent on this point. He argues that geographers and others have tended to think of scales as fixed and given and that the current extent and function of a particular scale is somehow natural and eternal. The classic example of this thinking is the association of the state with the national scale. John Agnew (1994) argues that the national-scale state is a socially produced, and therefore, temporary arrangement. The state was not always predominantly national and almost certainly will not be predominantly national in the future. In fact, a wealth of research suggests that the

dominance of the national-scale state is waning as part of the political aspect of global restructuring. On one hand, many governing functions are being transferred to larger-scale bodies such as the European Union, the United Nations, the World Trade Organization, the World Court, and so on (see, for example, Leitner 1997; Balibar 1999; Brenner 1999; Wallace 1999). On the other hand, numerous state functions are being devolved to more local scales as a way both to deflect discontent associated with restructuring and to tailor competitiveness strategies better to specific local areas (Staeheli et al. 1997; Raco 2003; Rodriguez-Pose and Gill 2003). In short, **scalar arrangements, such as the national-scale character of the state, are constantly in flux; they are constantly being produced and reproduced.**

At the same time, many have stressed that scale is not **entirely fluid—that scalar arrangements, once produced, can become routinized into enduring and hegemonic structures for certain periods of time.** Although a given scale has no inherent or eternal characteristics, it still can become associated with a given social process. Again, the national state provides an excellent example. Although there is no inherent link between the national scale and the state, in the post-Westphalian era, that link was forged through political struggle. While this link has had to be reproduced continually, it has endured for an extended period and has very real effects. To take just one example, state sovereignty at the national scale has been critical for shaping geopolitics. The geopolitical definition of internal and external, “it’s us versus them,” long has been defined at the national scale. Thus, for a long time, geopolitics predominantly has involved relations among national-scale groups rather than relations among, say, imperial, urban, or continental groups. Thus, **those who stress the fixity of scale argue for the importance of path dependence: The current globalization and localization of state practices is occurring in the context of a hegemonic national-scale state, and that context has a deep influence on how state rescaling is playing out.**

Neil Smith (1993) is particularly clear on the idea of fixity. He uses the phrase **“jumping scales”** to signify a political strategy that circumvents and challenges the present entrenched structure of scale. Groups that are at a disadvantage at one scale can jump scales to pursue their agenda at a different scale in an effort to shift the balance of power in their favor (Born 2003). This strategy is used often by marginalized groups that are disadvantaged by present scalar arrangements. Smith is clear that the present structure is not natural or eternal, but it is nevertheless real, and it does favor certain groups over others. Along these lines, we might speak of the structuration of scale. Giddens’ (1984) idea of structuration is that social agents both reproduce and are constrained by social structures. In the context of scale, structuration involves the continual process of agents’ fixing, unfixing, and refixing scalar structures. Scale, then, is simultaneously fluid and fixed.

## Scale Is Relational

The last insight of this literature is **that geographical scale is a fundamentally relational concept** (Agnew 1997; Howitt 1998; Kelly 1999). That is, the idea of scale implies a set of interscalar relationships. The meaning of a local scale, for example, only comes alive in relation to other, larger scales. Moreover, because scales represent larger and larger portions of geographical space, **relations among scales are defined by embeddedness.** The local scale is embedded in the national scale, which is embedded in the global scale, and so on. Each scale, therefore, is inseparably defined by and tied to the others. However, the particular relationships among scales are the product of social production. The hegemony of the national-scale state, to take our earlier example, did not define the national as larger than the local, but it did establish the national scale as the dominant scale of state sovereignty and the local as a subordinate scale. Thus, **decisions made by local-scale state bodies can be overturned by national-scale bodies. Any move toward localization, conversely, advocates a new relationship between the local scale and larger ones as power devolves to local areas.** Neil Brenner (2001) is particularly insistent on the relational qualities of scale. For Brenner, **analyses that focus on only one scale—what he calls the singular connotation of scale—are not really about scale per se, since examining only one scale misses the relationships among scales.** He argues that such **singular analyses are really about a region, a territory, a place, or a space rather than a scale.** Brenner argues instead for what he calls the plural connotation of scale, in which the analysis focuses on the “shifting organizational, strategic, discursive, and symbolic relationships between a range of intertwined geographical scales” (Brenner 2001, 600). Therefore, **analyses that are specifically analyses of scale—rather than of territory or place or space—must examine a range of scales at once** (rather than focusing on a single scale alone), and they specifically should interrogate the changing interrelationships among the various scales.

If we were to tie these three theoretical principles together into a coherent methodological directive, we might say that **descriptive research on scale should interrogate how the interrelationships among scales are fixed, unfixed, and refixed by particular social actors pursuing specific political, social, economic, and ecological goals. Normative research should analyze why a particular rescaling (e.g., localization) is better than other scalar strategies (global/national/regional) for achieving specific goals (e.g., democratization, sustainability, quality, etc.), and these goals should be articulated clearly and distinguished from the scalar strategy used to pursue them.**

If we adhere to these theoretical principles, the local trap becomes untenable. If there is nothing inherent about any particular scale, we cannot associate a particular scale with a particular goal, as when the local scale is conflated with



sustainability, democracy, or justice. We no longer can assume essential qualities for particular scalar arrangements, as when a globalized food system is conflated with a capitalist, industrial, and ecologically destructive food system. And we need not engage in extensive empirical research to undermine the local trap. We need not build a case file of instances in which localization failed to produce justice or sustainability or democracy. Instead, we have a theoretical starting position that averts the local trap. If we start from these principles, localization raises no a priori assumptions; instead, it points to an ongoing struggle among competing interests. **It invites inquiry to discover what actors and agendas brought about and were empowered by localization. It is those actors and agendas that produce outcomes, not the scales through which the agendas were realized.**

### ► The Local Trap in Food-Systems Research

We argue in this section that across various disciplines, research into food systems is marked by the local trap. We do not suggest that all work is equally trapped; the degree to which the local trap is present varies significantly. We try to do justice to this variation, but we also want to make clear that the **local trap is a pervasive problem, and there is a real danger that it will be incorporated into planning as planners delve further into the question of food systems.**

#### The Roots of the Local Trap

To avoid the local trap, it is helpful to understand why it has come to be (Hinrichs et al. 1998). There is certainly a wide range of reasons, but we want to highlight one we think is particularly powerful: **the contextual power of the current historical moment.** During the past fifty or sixty years, especially in developed economies, agricultural production has undergone profound and much-discussed changes. The primary changes have been to intensify the industrial-capitalist nature of food production. Food increasingly is grown on large corporate farms. More and more, crops are commodities to be sold on the open market. Labor increasingly is being mechanized. Fields increasingly are being irrigated and treated by chemicals to ward off pests and disease. Seeds increasingly are being produced in corporate research-and-development labs rather than being managed by farmers in the field. **As so much research has shown, while these trends have increased crop yields in the aggregate, they also have increased injustice, environmental degradation, food insecurity, and oligarchical decision-making structures** (Magdoff et al. 2000; Shiva 2000; Norberg-Hodge et al. 2002). Certainly, this process has been uneven and resisted in different places and at different times, but it is hard to ignore the tendentious process of what we will call the “capitalistization” of food production.<sup>1</sup>

One important scalar strategy through which firms have pursued the capitalistization of agriculture has been globalization. **Food production, supply chains, and food markets have become increasingly global as a means to achieve capitalistization. We suggest that because capitalistization has been associated so closely with globalization in this (very brief) historical era, many have conflated the two, assuming global agriculture is somehow the same thing as capitalist agriculture, that globalization necessarily equals capitalistization.** We frequently see terms such as “global agro-food complex” (Winter 2003, 24) or the “global industrialized food system” (Campbell 2004, 342) or “free (global) market” (Henderson 1998, 112) that equate a global with a capitalist food system. What follows logically from this assumption is that resistance to capitalist agriculture, what are termed “alternative agro-food networks” (Goodman 2003, 1), must be necessarily local. Thus, we see representations of a “tension” between “the global industrialized food system and the alternative community food system” (Kaufman 2004, 338; Caton Campbell 2003). Here, *community* is used synonymously with *local community* (Peters 1997). This conflation is another manifestation of the local trap that ignores the fact that communities exist at all scales, as when we speak of an international community. Lacy (2000, 20) heralds the “numerous scholars and practitioners . . . trying to redress the imbalances in the global food system through the development of locally based alternatives.” Henderson (1998, 112) notes Wendell Berry’s

fierce critique of the irresponsibility of the impersonal relations of the industrialized, corporate, global food system, while lifting up the homely values of stewardship of the land and respect for the local people, their farms, businesses, and living web of interdependencies.

Allen et al. (2003, 61, 62) find that most alternative food movements “frame their engagement as opposing the global by reconstructing the local. . . . The alternative to globalized agriculture many advocate is ‘localization.’ ” In arguing for more attention to food systems among planners, Clancy (2004, 435, italics added) suggests that “food system advocates engage planners on specific, well-targeted issues *at the local or regional level.*” Thus, a powerful historical narrative of simultaneous globalization and capitalistization has led many food activists to advocate a return to the local and relocation as alternatives to capitalist agriculture (Pacione 1997; Pothukuchi 2004). **They speak of resisting globalization when they actually mean resisting the corporate capitalist food system** (McMahon 2002). **Such visions seek in part to regain an imagined past of localized and noncapitalist food systems that were dismantled by capitalistization.**

#### The Manifestations of the Local Trap

Certainly, the local trap has other sources, among them rural sociology’s “long devotion to local community research”

(Goodman 2003, 1), a devotion very similar to that of geography's subdisciplinary analog, cultural ecology. Also important has been the influence of poststructural approaches such as that of Arturo Escobar (1995, 2001) that contend that locally based social movements are the key to resisting the hegemony of global capitalism. Despite the many benefits of the poststructural critique, one ironic drawback is that many in that tradition offer an essentialized view of scale that sees the global as hegemonic and oppressive and the local as radical and subversive. **Within planning, the local trap advocates local over regional or national planning, or the push for devolved authority from central bodies to ostensibly more democratic local ones** (Born 2003).

In addition to its many sources, there are also diverse manifestations of the local trap. Some arise outside academia and have built concrete resistance movements to the capitalist food system. The slow-food movement, for example, "advocates a return to traditional recipes, locally grown food and wines, and eating as a social event" (Petrini 2004). The movement is a loose confederation of thousands of local chapters, each of which link local production and consumption to resistance to the dominant agro-food system. A related set of initiatives is associated with famous chef and writer Alice Waters. She advocates that restaurants buy and serve only locally produced food (e.g., a recent menu offered Hoffman Farm chicken breast or local Halibut poached in oil). This notion has deeply affected menus in higher-priced restaurants all over the United States. Another of Waters' projects is the Edible Schoolyard, originally a pragmatist idea of John Dewey in the 1930s (Hassanein 2003), which conflates local food with a whole range of other goals:

Now if every school had a lunch program that served its students only local products that had been sustainably farmed, imagine what it would mean for agriculture. Today, twenty percent of the population of the United States is in school. If all these students were eating lunch together, consuming local, organic food, agriculture would change overnight to meet the demand. Our domestic food culture would change as well, as people again grew up learning how to cook affordable, wholesome, and delicious food. (Waters 2004)

As we suggest above, some in academia have begun to be more cautious about the assumption that local equals desirable (Allen et al. 2003; Hinrichs 2003; Winter 2003; Campbell 2004). Nevertheless, the local trap also marks research among academics who study food. Here again, the work is diverse, but we contend it can be **grouped broadly into three concerns: ecological sustainability** (including the minimization of food miles, the use of organic or other sustainable production methods, and the organization of contemporary food-marketing and retailing structures); **social and economic justice** (including the development and redevelopment of local—often agricultural—economies, community stability, democracy, local empowerment, and food security);

**and food quality and human health** (typical arguments being that fresh is best or local foods are healthier).

## Ecological Sustainability

**The broadest claim against the capitalist food system concerns environmental sustainability. The simplest version of this claim is that local production is more ecologically sustainable.** The argument is that conventional agriculture and the global networks that it uses for marketing, distribution, and waste disposal are too dependent on petroleum, petrochemicals, greenfield land, and pavement in the form of transportation networks to be sustainable in the long term (see, for example, Shiva 2000; Pirog et al. 2001; Norberg-Hodge et al. 2002). Extensive and excessive food transport, often spoken about in terms of "food miles," uses large amounts of fuel and contributes to greenhouse gases, and thus, global warming (Pirog et al. 2001; Norberg-Hodge et al. 2002, 19-33). Alternatively, chemical inputs in the form of pesticides, herbicides, and fertilizers pollute surface water and groundwater supplies and call into question the safety of our food supply. These are all major concerns, and we agree with those who have identified them as such. However, **the solutions should not be assumed prematurely to be local ones. There is nothing inherently good about local methods of production, which easily can be as unsustainable as those in conventional agribusiness.** In fact, if the local in question is corn or hog country in Iowa, wheat farms in eastern Washington, or the Central Valley of California, consuming local food means consuming conventional capitalist agriculture.

In buy-local campaigns, for example, local produce commonly is conflated with organic produce (Hutchings 1994; Peters 1997; Center for Sustainable Environments 2001; Grady 2002-2003; Weatherell et al. 2003). Figures 1 and 2 show outreach material that conflates local with a whole range of goals, including organic produce, better taste, increased health, avoiding GMOs, saving family farms, preserving open space, creating stronger communities, and even lowering taxes. But in fact, buying local guarantees no particular end. Consider the hypothetical example of a buy-local campaign in Arizona. Any ecological benefit from using less fuel for transport clearly would be outweighed by the need for massive water inputs. **Such counterexamples illustrate the lack of a necessary linkage between local food and ecological sustainability and the danger of conflating scale with ecological goals.** While buy-local campaigns are perhaps an extreme example of the local trap since they uncritically conflate so much with localization, they are quite common and accepted among food activists. **If planners uncritically adopt tactics and strategies from such advocates, they, too, run the danger of being locally trapped and misallocating their own limited resources.**

# 10 Reasons to Buy Local Food

## 1. Locally grown food tastes better.

Food grown in your own community was probably picked within the past day or two. It's crisp, sweet and loaded with flavor. Produce flown or trucked in from California, Florida, Chile or Holland is, quite understandably, much older. Several studies have shown that the average distance food travels from farm to plate is 1,500 miles. In a week-long (or more) delay from harvest to dinner table, sugars turn to starches, plant cells shrink, and produce loses its vitality.

## 2. Local produce is better for you.

A recent study showed that fresh produce loses nutrients quickly. Food that is frozen or canned soon after harvest is actually more nutritious than some "fresh" produce that has been on the truck or supermarket shelf for a week. Locally grown food, purchased soon after harvest, retains its nutrients.

## 3. Local food preserves genetic diversity.

In the modern industrial agricultural system, varieties are chosen for their ability to ripen simultaneously and withstand harvesting equipment; for a tough skin that can survive packing and shipping; and for an ability to have a long shelf life in the store. Only a handful of hybrid varieties of each fruit and vegetable meet those rigorous demands, so there is little genetic diversity in the plants grown. Local farms, in contrast, grow a huge number of varieties to provide a long season of harvest, an array of eye-catching colors, and the best flavors. Many varieties are heirlooms, passed down from generation to generation, because they taste good. These old varieties contain genetic material from hundreds or even thousands of years of human selection; they may someday provide the genes needed to create varieties that will thrive in a changing climate.

## 4. Local food is GMO-free.

Although biotechnology companies have been trying to commercialize genetically modified fruits and vegetables, they are currently licensing them only to large factory-style farms. Local farmers don't have access to genetically modified seed, and most of them wouldn't use it even if they could. A June 2001 survey by ABC News showed that 93% of Americans want labels on genetically modified food - most so that they can avoid it. If you are opposed to eating bioengineered food, you can rest assured that locally grown produce was bred the old-fashioned way, as nature intended.

## 5. Local food supports local farm families.

With fewer than 1 million Americans now claiming farming as their primary occupation, farmers are a vanishing breed. And no wonder - commodity prices are at historic lows, often below the cost of production. The farmer now gets less than 10 cents of the retail food dollar. Local farmers who sell direct to consumers cut out the middleman and get full retail price for their food - which means farm families can afford to stay on the farm, doing the work they love.

## 6. Local food builds community.

When you buy direct from the farmer, you are re-establishing a time-honored connection between the eater and the grower. Knowing the farmers gives you insight into the seasons, the weather, and the miracle of raising food. In many cases, it gives you access to a farm where your children and grandchildren can go to learn about nature and agriculture. Relationships built on understanding and trust can thrive.

## 7. Local food preserves open space.

As the value of direct-marketed fruits and vegetables increases, selling farmland for development becomes less likely. You have probably enjoyed driving out into the country and appreciated the lush fields of crops, the meadows full of wildflowers, the picturesque red barns. That landscape will survive only as long as farms are financially viable. When you buy locally grown food, you are doing something proactive about preserving the agricultural landscape.

## 8. Local food keeps your taxes in check.

Farms contribute more in taxes than they require in services, whereas suburban development costs more than it generates in taxes, according to several studies. On average, for every \$1 in revenue raised by residential development, governments must spend \$1.17 on services, thus requiring higher taxes of all taxpayers. For each dollar of revenue raised by farm, forest, or open space, governments spend 34 cents on services.

## 9. Local food supports a clean environment and benefits wildlife.

A well-managed family farm is a place where the resources of fertile soil and clean water are valued. Good stewards of the land grow cover crops to prevent erosion and replace nutrients used by their crops. Cover crops also capture carbon emissions and help combat global warming. According to some estimates, farmers who practice conservation tillage could sequester 12-14% of the carbon emitted by vehicles and industry. In addition, the habitat of a farm - the patchwork of fields, meadows, woods, ponds and buildings - is the perfect environment for many beloved species of wildlife, including bluebirds, killdeer, herons, bats, and rabbits.

## 10. Local food is about the future.

By supporting local farmers today, you can help ensure that there will be farms in your community tomorrow, and that future generations will have access to nourishing, flavorful, and abundant food.



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## Buy local food. Sustain local farms.

Figure 1. "Buy local" promotional material.

Source: Center for Sustainable Environments (2001). Used with permission.

### Social and Economic Justice

Another set of arguments for localism is based in social or economic justice. Here, the assumption is that localizing the food system, in terms of production, consumption, or both,

will improve the social and economic fortunes of the community (Feenstra 1997; Pacione 1997; Center for Sustainable Environments 2001; Norberg-Hodge 2002). Feenstra's (1997, 28) argument is representative: "the development of a local sustainable food system provides not only economic gains for



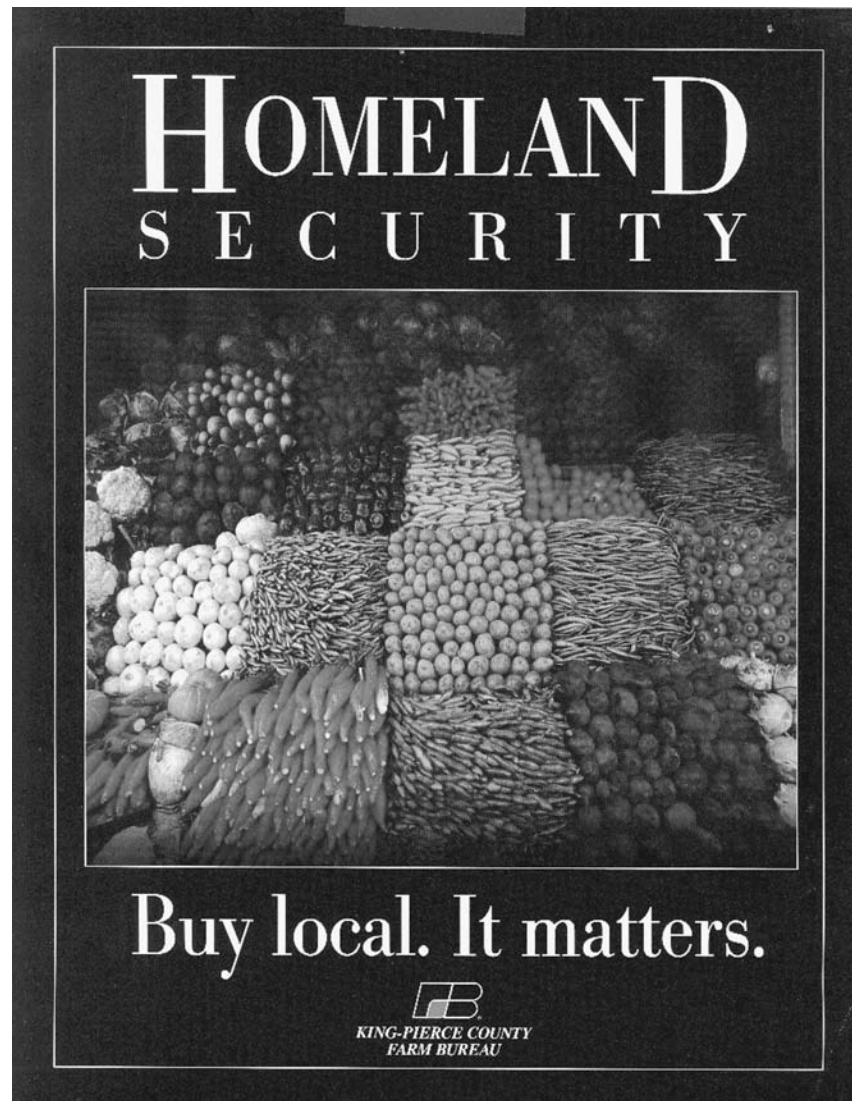


Figure 2. "Buy local" campaign in Washington State.

Source: King-Pierce County Farm Bureau (flyer). Used with permission.

a community but also fosters civic involvement, cooperation, and healthy social relations." Figure 2 shows a poster published by the King-Pierce County Farm Bureau in Washington State. It argues that buying local is a matter of homeland security. The phrase *homeland security* clearly is used playfully to refer to preserving local economies. The poster is not explicitly saying that the stakes are so high that not buying local is equivalent to treason, that nonlocal consumption leaves us open to a fate as awful as the World Trade Center attacks. Nevertheless, the use of that particular term seems to suggest that the bureau believes the stakes are equally high.

In fact, buying locally can produce economic losses for the community just as easily if the community is missing an opportunity to benefit from another region's comparative or

absolute advantage. Even when local consumption does produce economic gains, existing inequalities within the local community can allocate those gains in a way that exacerbates rather than alleviates social injustice, as Hinrichs (2000) suggests. Moreover, if the local community is relatively rich, its economic gains will worsen injustice at wider scales. There is certainly no social justice in Beverly Hills' capturing more of its own wealth for local investment. These problems suggest that the key is to concentrate on the end goals, not on the scalar strategy itself. Local as an end, for its own sake, is merely nativism, a defensive localism that frequently is not allied with social-justice goals. These same problems would apply more generally to all local economic-development projects. Local economic development should not be thought of as an end in itself. It should be thought

of as a scalar strategy to produce ends such as poverty reduction or greater social justice. Where local economic development does produce the desired end, it should be used; where it does not, as in the Beverly Hills example, other scalar strategies should be pursued.

The work on embeddedness is another, more nuanced example of the emphasis on local exchange systems. This work stresses that face-to-face interaction helps strengthen community, justice, and security; therefore, it tends to privilege locally organized food systems (Murdoch et al. 2000). "Good food," for Sage (2003, 50), should include, among other characteristics, "socially embedded features that are established by its scale of production and by its generally localized distribution through short food supply chains." But while local systems can lead to greater face-to-face interaction that can lead to more trust and regard between producers and consumers, this causal chain does not necessarily result in either better information for the customer or more sustainable or just food systems (Sage 2003). It is possible, for example, that food produced far away could be labeled sustainable by a trade organization (analogous to fair-trade labels; see Renard 2003). This label is just as likely to provide reliable information as a farmer or merchant at a local farmers market who wants to sell and has an incentive to misinform. There is also no reason why distant producers are not more sustainable or do not abide by more just social relations than those whom the consumer knows personally.

In addition to being misleading, the local trap also occludes scalar strategies that may be essential for achieving justice. In a given context, there is no way to know a priori which scalar strategy will be most effective. It is critical to consider strategies at a range of scales. Large-scale strategies might include changing national agricultural production from vulnerable monocultural methods; developing more integrated food-quality, access, and nutrition federal policies; assisting organizations such as the national Second Harvest food bank in collaborating with local food pantries; and increasing funding to food-related bills such as the national Farm Bill, which includes food-security project funding. Smaller scale strategies for food security might include increasing everyday access to food (supermarkets, farmers markets, farm stands, community-supported agriculture) through regulatory reform and market incentives. Whatever the case, it is critical to choose the scalar strategy that is most likely to produce the desired outcomes. For example, it is difficult, if not impossible, for local agencies to work against embedded deficiencies in federal programs; conversely, adapting local zoning ordinances to allow for easier grocery-store development in central cities is hardly the realm of state or federal government. To narrow the scope to the local level while ignoring other scales of potential action is dangerous for both practice and theory.

## Food Quality and Human Health

As with the other two concerns, the local trap assumes that localized food systems will lead to higher quality, fresher, healthier foods (Peters 1997; Center for Sustainable Environments 2001). Holloway and Kneafsey's (2000) examination of farmers markets, for example, found among participants a pervasive conflation of local food with high-quality food. With regard to food quality, some focus on the question of transportation and the time spent after harvest in shipping and handling (Nygard and Storstad 1998). Clearly, a farmer fifty miles from a local farmers market might have a faster and easier trip to make than grocery-store produce from the Central Valley (much less another continent entirely). However, to make the leap that this is always the case is, practically speaking, incorrect. Large-scale farming operations can afford, and must use, rapid-shipment methods and quick refrigeration to keep produce fresh. In some cases, it might be fresher and better for consumption than the local choice. One can imagine a local farmer picking produce in the afternoon one day, loading it into a nonrefrigerated truck, and driving it to market the following morning. By noon, that produce has spent almost twenty-four hours in the truck, and during several of those hours, the truck is exposed to the hot sun. That produce is not necessarily fresher or healthier than the same product produced using the same methods, immediately placed into a refrigerated truck, and shipped one thousand miles to the same market. While the local option may be the better choice for some foods—difficult-to-ship products such as heirloom tomatoes, for example—it cannot be said that local food is always better, or delivers healthier products.

The last argument for localism we examine is that of food miles (Marin 2003). Food miles, or the distance food travels from field to table, have grown tremendously in the past three decades. An estimate by the United States Department of Defense in 1969 suggested that the average American meal had traveled 1,300 miles from farm to plate. A more recent estimate suggested 1,500 to 2,500 miles (Halweil 2002), and another suggested 5,000 miles in the United Kingdom (Pretty et al. 2005). The resources expended for this transportation are argued to be unnecessary and unsustainable. Certainly, minimizing the unnecessary transportation of goods (see Norberg-Hodge et al. 2002) is desirable. But the blanket assumption that the reduction of food miles that local production provides always trumps other considerations can be harmful environmentally and economically. In some cases, it may be environmentally desirable to transport products instead of degrade local resources. We need to compare critically the environmental costs of local production of, for example, rice in California or Texas, with all of its water requirements, with the transport of rice from places in the world in which rice production makes more ecological sense.

Which is more, the environmental costs of transport or of water pumping and groundwater depletion? The question is more complex than a localist argument suggests. Pretty et al. (2005) suggest it is better for environmental sustainability to buy local, conventionally grown produce instead of buying nonlocal organic produce. But the balance sheet is complex, and the most sustainable strategy is likely to vary from case to case. This complexity and responses to it have been recognized by some food-system researchers. Hassanein (2003) suggests that in cases such as these, in which values conflict and outcomes are uncertain, democracy becomes the appropriate method for decision making. She does not assume the primacy of the local. The local trap, though, assumes localness trumps other considerations. In the case of food miles, we argue simply that they are but one of many considerations that must be examined in deciding which option is the most desirable.

Patrick Martins (2004), director of Slow Food U.S.A., notes in his *New York Times* editorial that while local farms are important, we need to move beyond buy-local campaigns to support the alternative agricultural system. Martins' thinking is clearly about ends—diversity and safety in our food system and sustainable agricultural economies—while his means are adaptable to individual circumstances. A good example of this type of approach is Urban Organic, a home-delivery company for organic products in the New York–New Jersey–Connecticut region. The company purchases from a network that includes not only local farmers but cooperatives and distributors. This network is important for keeping small farms in business, because when farmers are involved in sales either directly or through cooperative arrangements, they receive more profit on their product than if they are forced to go through multiple middle tiers of distribution to reach consumers. We could extend this type of model to larger regions. Red Tomato and its close relation, Equal Exchange, support fair trade and small, noncorporate family farms, but they coordinate on more than just a local level. Equal Exchange coordinates fair-trade coffee markets internationally, and Red Tomato brokers United States–grown foods across New England. These organizations have used the Internet and other networking tactics to think beyond local, using the powers typically associated with capitalist agribusiness for more sustainable, socially just agriculture. In some cases, of course, the local would be the appropriate scale. All other things being equal, a more local product would be more environmentally sustainable for reasons of food miles, and again, all other things equal, a delicate heirloom tomato would be of higher quality the less it was shipped and handled. Both cases suggest that for some goals and in some contexts, the local can be an appropriate scale for action. But it is never necessarily so. In the final analysis, we agree with Martins and Renard that a variety of scalar strategies can be effective in preserving family farms and accomplishing many other goals of food-systems practitioners.

## Network Theory

Having now reviewed the local trap in food-systems research, we should mention one other literature relevant to the problem of the local trap. Some have begun to explore how network theory can inform research on agro-food systems (Whatmore and Thorne 1997; Murdoch 2000; Murdoch et al. 2000). Kneafsey et al. (2001) articulate clearly how network theory can transcend the local trap. They set out the concepts of endogenous and exogenous development, arguing that research increasingly is advocating the former, in which local areas pursue self-sufficiency through “economic activities which are explicitly based on locally embedded resources, skills and knowledge” (p. 296). They argue that endogenous development increasingly is seen as mutually exclusive with exogenous development, in which local areas are linked economically to outside systems that regularly are assumed to be capitalist, industrial, and destructive. Kneafsey et al. reject this dualism and argue that local places must forge a combination of what they call vertical and horizontal networks. Vertical networks refer to a local agricultural economy's links to a “broader set of processes which exist beyond rural areas,” while horizontal networks refer to links to nonagricultural interests in or near the local area (p. 299). For network theorists, local food sectors must establish linkages (and interdependencies) both with local networks and with networks that transcend the local. Thus, for example, for a sustainable hog-farming cooperative in Northern Iowa to thrive, it might need a much larger market than the sparse local population in Iowa is able to provide (Grey 2000). In a different way, then, the network approach can offer an alternative theoretical solution to the local trap.

That said, we wish to defend the need for our scalar solution to the local trap. First, those working with networks have not identified clearly the preference for the local scale as a specific problem. While their approach offers promise, that promise is not yet realized fully because they have not articulated the problem of the local trap and how network theory might avoid it (as evidenced by Wekerle [2004], whose article on food-justice movements and networks recognizes multiple scales but lacks a clear argument about the local trap). Second, the local trap, in general, is a particularly scalar trap. While it is true that the work on local embeddedness is celebrating local networks in particular, most locally trapped work favors the local as a scale in opposition to larger scales that are believed to be inherently less just, sustainable, and so on. As such, a theoretical solution that is specifically scalar provides the most appropriate solution to the problem of the local trap. Nevertheless, we want to argue strongly that both theoretical perspectives are helpful for thinking clearly about urban food systems. Recent debates in geography have made clear that scale and network are different concepts, and each has particular strengths and weaknesses in how it illuminates



contemporary society (Whatmore and Thorne 1997; Brenner 2001; Amin and Thrift 2002). Ultimately, a **theoretical solution to the local trap must include a skillful weaving of both scale theory and network theory**. While such a feat is beyond the scope of this article, it is certainly an important imperative for future research.

## ► Conclusion

Our hope is that our theoretical approach to scale can help planners systematically avoid the local trap as they increasingly explore questions of food systems in cities and engage the food-systems literature outside planning. While we applaud the argument in the recent special issue of *Journal of Planning Education and Research* that planners must engage more fully with food-systems research, we are concerned with that issue's relatively uncritical assumption that local-scale systems are inherently desirable (Kaufman 2004, 340). That issue suggests that the danger of importing the local trap into planning from food-systems research is very real. Moreover, beyond just avoiding the trap, we hope **thinking about scale in this way encourages planners to pursue a very different research agenda** than the one currently developing in the food-systems literature. **Planners need not carry out extensive empirical studies to determine whether or not the local is inherently desirable**. Rather, they can **see scale as a strategy that can have a range of outcomes, both good and bad**. Since the outcomes depend on the agendas of those empowered by a scalar strategy, **planning research can make those agendas the subject of critical inquiry, answering questions such as the following: Who will benefit from localization (or nationalization, etc.)? What is their agenda? What outcomes are most likely to result from a given scalar strategy?** For those **planners pursuing a particular normative goal, scale theory encourages them to use scalar strategies shrewdly rather than unconsciously. It leads them to take very seriously the question of which scalar strategy is most likely to produce the outcome they desire**. Of course, this article is largely a theoretical argument, and what is needed in future work is empirical explorations of the above questions. The theoretical and methodological implications of our argument need to be grounded in and learn from particular food struggles.

We also want to suggest that scale theory can help avoid the local trap (and other scalar traps) in areas of planning beyond food systems. For example, the principles presented here invite careful attention to scale in the study of community development. At what scale is the community defined (Anderson and Cook 1999)? What goals is community development trying to achieve? Is development at the scale of the community the best strategy to achieve those goals, or are other scales more effective in a particular context? Similar

questions could be asked of neighborhood planning. What are the goals of neighborhood planning, and is the neighborhood scale the best way to realize them? **If more democratic planning is the goal, it is important not to fall into the trap of assuming that localization of decision making means more democracy**. When, for example, residents of a wealthy neighborhood have the power to prevent a sewage-treatment plant from being built in their neighborhood even though the plant is badly needed by all city residents, we are much closer to oligarchy than democracy.

Another area we think can benefit from scale theory is regional planning, in which, in the United States, the opposite scalar trap often applies. Many in this literature assume that upscaling planning decisions beyond local areas to a larger, regional scale is inherently more socially just. But the goal of social justice will be realized only if a regional planning authority pursues a social-justice agenda. Just as easily, the authority could be controlled by business interests with little concern for social or environmental justice. One further benefit to planning we might mention has to do with allowing planners to think beyond jurisdictional limits imposed on their work. Rather than accept and work within those limits, seeing scale as a strategy encourages planners to imagine alternative scalar arrangements that might allow them more room to maneuver. A well-known example of such reimagining is statewide growth-management legislation. Whatever its ultimate effect on cities, developing planning tools at the statewide scale has provided planners in places such as Washington State much more leverage to manage growth than they had at the municipal scale.

Certainly, we cannot establish fully in this article the utility of scale theory for planning issues beyond food systems. But we do want to sound a note of excitement for what scale theory has to offer planning more broadly. We suggest that thinking more consciously about scale by drawing on the insights of geographers can help planners better distinguish strategies from goals. In that way, scale theory provides planners a powerful tool for more consistently realizing those goals, both in food systems and beyond.

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## ► Note

1. This is admittedly an ugly word, but we want to be very specific about the process. The terms *industrialization* and *globalization* are misleading since they can be capitalist or not, and it is specifically the capitalist logics of industrialization (and its globalization strategy) that result in the negative effects cited by the research.



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