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Reimagining the food system, the economy, and urban life: new urban chicken-keepers in US cities

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Since the mid-nineteenth century, poultry and livestock animals have increasingly been seen as out of place in, and excluded from, modern United States cities. Yet, since 2000, increasing numbers of urban residents have begun keeping chickens and other small livestock in backyards. Through an analysis of the re-emergence of this practice in Portland, Oregon, and Seattle, Washington, we show that chicken-keepers are not raising chickens simply to save money or to pursue an eccentric hobby, but rather as an explicit effort to promote and enact alternative urban imaginaries. Such imaginaries make possible alternative practices, and in turn, the performance of everyday practices reshapes urban imaginaries. In interviews, participants critique the industrial food system, urban economies and social life, and “think differently” about human-animal relations and productive animals in cities. Through chicken-keeping practices, they establish sustainable backyard agro-ecosystems, build sociability, resist consumerism, and work simultaneously to improve the life and health of animals, humans, and the urban environment.

Keywords: urban agriculture; urban livestock; animal geographies; food systems; urban imaginaries

Introduction

In North American cities, the past decades have seen a widespread rise of food-related discourse and activism, including movements for local foods, organics, farm-to-fork cafeterias, Slow Food, and urban homesteading, as well as keeping “backyard” livestock for household use, for example, hens, bees, rabbits, or goats. While not novel, this counters a century-long trend toward exclusion of productive animals¹ from North American cities, challenging common notions of what cities are and are for.

Since the earliest civilizations, urban residents have kept animals as a source of power, food, and fiber (Smit, Nasr, & Ratta, 2001). In the United States, large cities housed tens of thousands of horses, pigs, and cows, and innumerable smaller livestock animals well into the early twentieth century. Many more arrived to die in urban slaughterhouses, close to markets (Atkins, 2012; Cronon, 1991; Lee, 2008). Productive animals were an integral part of the urban fabric, relied on by humans, while management of their voluminous wastes and providing their daily needs for food, water, and shelter were key urban metabolic functions. Gradually, albeit unevenly, cities were tamed and cleaned for more efficient commerce, sanitation, and middle-class sensibilities, excluding productive

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animals. By the early twentieth century, the great majority of urban horses, cows, and pigs had been removed; by the century's end even the memory of urban livestock had been largely erased, making the very presence of goats or chickens seem out of place for many urban residents.

Exclusion unfolded differently for various species. Some animals and animal industries were forcibly removed in the name of public health and safety. Tens of thousands of hogs, for example, used to roam large United States cities, serving as waste-collectors on the hoof as they ate the considerable organic wastes in streets and alleyways, from kitchen scraps to dead cats. The 1810s through the 1850s saw repeated efforts by city officials to eradicate hogs from Manhattan and Brooklyn, finally overcoming violent resistance from poor residents dependent on them as a food source after cholera epidemics convinced the public that removing hogs might save lives (Gilje, 1987; McNeur, 2011). Other animals were displaced by technological advances. Horses were omnipresent as transport until they were all but eliminated by motorized vehicles in the early twentieth century (Davies, 2004; Rogers, 2006). Cows lost their status as urban residents once it became possible for dairy products to be produced commercially in surrounding areas (Atkins, 1977; Brown, 2010). Less is known about the shifting presence of smaller animals—honeybees, rabbits, and poultry—but it can be presumed that these also were present in considerable number, replaced as food became easier to purchase than produce.

Exclusion was reinforced by geographic changes in agri-food systems during the twentieth century. Animal agriculture grew in scale and concentration, increasingly confined and distanced from urban residents, as parts of industrialized commodity chains (Hart, 2003; Watts, 2004), meaning that few urban Americans had regular contact with farms or food production by the late twentieth century. As Watts asks, “who has visited a chicken farm or pig slaughterhouse?” (2004, p. 60). Americans broadly came to understand productive animals only as farm animals, out of place by definition in an urban setting.

In the context of a widespread resurgence of interest in urban agriculture (Colasanti, Hamm, & Litjens, 2012), the recent return of small-scale urban livestock agriculture (ULA) constitutes an important counter-trend to the denaturalization of urban imaginaries. Urban chicken-keeping, in particular, has become a notable alternative urban practice. This article examines the re-emergence of backyard chicken-keeping as a practice challenging the exclusion of productive animals from cities. We interrogate the imaginaries motivating this practice and how the practice itself is implicated in the construction of imaginaries. Gibson-Graham (2006) argues that in order to perform the economy differently, we must think it differently. In this paper, we show how urban chicken-keepers think or imagine differently in a variety of powerful socio-ecological discourses and systems—the industrial food system, urban ecology, urban economy, and social life—enacting their thinking through livestock-keeping practices.

The imaginary has been variously promoted as a source of creativity and freedom for both individuals and societies (Castoriadis, 1987 [1975]), and a fantasy or illusion (Lacan, 1977a [1949]). “For Castoriadis, the imaginary is fundamentally ‘the capacity to see in a thing what it is not, to see it other than it is’ (1987, p. 127), in other words, the imaginative capacity” (Strauss, 2006, p. 324). Taylor (2002) coined social imaginaries to describe how ordinary people understand the moral order of society. Human geographic scholarship challenges the presumption that geographical imaginaries merely represent the world, demonstrating that they are “implicated in a material and sensuous process of ‘worlding’” (Gregory, 2009, p. 282). We understand “worlding” as a practice involved in the production of regimes of truth which require critical deconstruction (Roy & Ong,

2011). In this spirit, critical geographers have joined “a heterodox project to challenge and disrupt the established maps of global urbanism” (McCann, Roy, & Ward, 2013, p. 584), and to construct anti-hegemonic alternative geographical imaginaries (Gregory, 1994; Howitt, 2001; Watts, 1999).

Highlighting the latter, we examine how urban residents construct alternative imaginaries about cities and urban life. We contend, moreover, that everyday practices are implicated in the construction of imaginaries. Thus, we examine how chicken-keepers both think and enact the relationships between animal and humans, humans and the environment, food production, economic and social relations in cities, in ways that differ from other urban residents. Chicken-keepers problematize and actively question the value of hegemonic food, economic, and ecological urban systems. Some participants articulate their discontent more explicitly than others, but we argue that all of them can be understood as putting into practice an alternative vision about how things ought to be. In the next section, we situate the imaginaries and practices of the New Urban Chicken Keepers (NUCKs)² in the pertinent geographic literature on cities, animals, capitalism, and nature; in the subsequent section, we examine the emergence of a virtual and material infrastructure, promoting and supporting urban chicken-keeping. The bulk of the paper analyzes three co-implicated imaginaries and practices of the NUCKs, before concluding.

Cities, animals, and nature

In Western thought, the city has come to be considered an exclusively social and cultural achievement. When nature is imagined in the city, it is often in “civilized” enclosures, such as parks, zoos, gardens, and flower shows. Since the late 1980s, geographers and other scholars have disrupted this city/nature binary, demonstrating that cities are dependent upon, constructed from and permeated by nature (Keil, 2003). Nature itself has also been brought into question: even wilderness is “constructed within global flows of commodities,” linked with cities “in tight political-economic and cultural circuits” (Braun, 2005, p. 636).

Since the late 1990s, reflecting developments in post-structuralist, posthumanist, indigenous, and feminist thought, human geographers have shown an “increasing awareness of the complexity and interconnectivity of life” and the need for diverse “more-than-human social geographies” (Panelli, 2010, p. 79). The subfield of cultural animal geographies connects this more-than-human scholarship with the growing interdisciplinary study of human-animal relationships or “society and animals.” Two landmark edited volumes (Philo & Wilbert, 2000; Wolch & Emel, 1998) anchored this burgeoning field that explores the diverse spaces and places of human-animal relationships. Distinct from earlier generations of zoogeography and animal geography, the current “third wave” (Urbanik, 2012) questions the “social and political order grounded in a human/animal binary” (Collard, 2013, p. 35), acknowledges non-human agency/subjectivity, and examines the social construction and co-creation of our identities and the spaces in which we enact inter-species relationships. For example, Fox’s (2006) study shows how pet owners’ understandings of their dogs float back and forth between pets as nonhuman Others, with biologically and species-driven instincts and needs, and an anthropomorphic, emotional, and personal relationship with their pets. Jennifer Wolch’s earlier work on wild animals in the city (Wolch, 1998, 2002; Wolch, West, & Gaines, 1995) laid the groundwork for a “transspecies urban theory” that values the lives and places of animals, makes visible the more-than-human city and promotes a more inclusive, ethical “zoopolis.” While this work has inspired a growing body of cultural geographic work on animals in cities, most studies

continue to focus on the interrelations of humans and one other species at a time, rather than truly multispecies relations.

Cultural animal geographers have tended to re-enact the exclusion of productive animals from cities, with little published scholarship on urban livestock. Studies of urban animals have focused significant attention on pets (Fox, 2006; Nast, 2006a), wild-life (Hinchliffe, Kearnes, Degen, & Whatmore, 2005; Thomson, 2007), and “pest” animals whether feral, “invasive”, or “native” (Biehler, 2009; Griffiths, Poulter, & Sibley, 2000; Seymour, 2012; Yeo & Neo, 2010). Contemporary geographic studies of livestock animals, interrogating the cultural meaning of traditional breeds and farming life, have primarily been situated in rural locations (Riley, 2011; Yarwood & Evans, 1998). The two richest studies of urban livestock are from outside the United States. Hovorka (2006, 2008, 2012) examines the political economy of commercial urban chicken-keeping in Gaborone, Botswana, highlighting the association between the increasing valuation of chickens and women’s economic and social empowerment. Gaynor (1999, 2007) chronicles contestations over the exclusion of productive animals in the twentieth century Australian urban areas. Within the United States, one published study compares municipal ordinances regulating small productive animals in 22 United States cities, showing the variability of regulatory strategies among municipalities as each tries to balance residents’ desires to keep livestock and poultry against public health and nuisance concerns (Butler, 2012). A fugitive literature on urban livestock includes Blecha’s (2008) and LaBadie’s (2008) analyses of livestock ordinances in various United States cities, Pallana and McClintock’s (2011) survey of practices of 134 livestock-keepers, and Blecha’s (2005) case study of human-animal relations on a Detroit urban farm.

The bulk of research on urban livestock-keeping has occurred outside geography, in history, development, and legal studies. Historians have documented nineteenth-century debates over the place of urban livestock and slaughterhouses (Dyl, 2006; McNeur, 2011; Robichaud & Steiner, 2010). In applied development studies, keeping urban livestock has been promoted as an income and nutrition strategy (Guendel, 2002; Mougeot, 2005; Thys, 2006). Legal scholars (Orbach & Sjoberg, 2012; Salkin, 2011) are analyzing the changing legal environment for chickens in United States cities, as the rise of NUCKs has precipitated revisions in urban animal control codes.

Situating the new urban chicken-keepers

Since the early 2000s, cities across the United States have seen an upsurge in backyard chicken-keeping. This drew the attention of the media, often showing amusement at an unusual practice that appeared to be rapidly growing (Bhatia, 2002; Druse, 2005; Flanders, 2002; Puente, 2003). In Saint Paul, Minnesota, the Supervisor of Animal Control remembers issuing only two chicken-keeping permits per year from 1987 until the late 1990s (personal communication, Stephenson, 2013). Since then, the numbers have been continuously increasing, with a clear take-off since 2008 (Figure 1).

There has been a parallel dramatic growth in networks, resources, and activities for urban chicken-keepers. Local listserves and clubs such as the Twin Cities Chickens listserve, Mad City Chickens (Madison, WI), ChicagoChickens.org, Seattle Tilth, and PDXBackyardChix (Portland, OR), serve as important information and organizational hubs. Network participants also organize chicken-keeping classes and chicken coop tours. Chicken-keeping classes have multiplied in many cities, and are often full (personal communication, Luetjen, 2003; Willcutt, 2009). To the best of our knowledge, Seattle Tilth was the first nonprofit organization to host

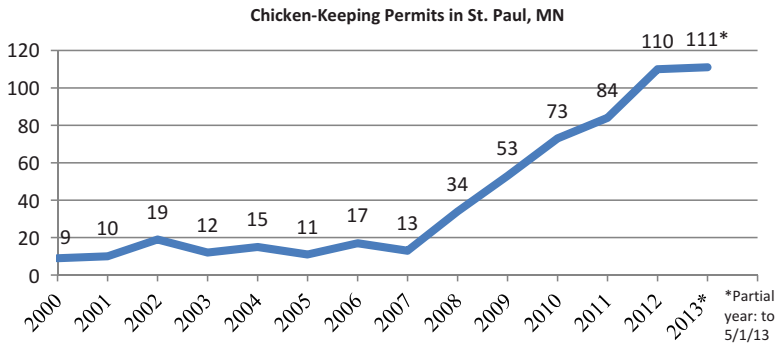


Figure 1. St. Paul, Minnesota, chicken-keeping permits issued by Animal Control, 2000–2013. Source: Stephenson, 2013.

classes, beginning with “City Chickens 101” in 2002. Chicken-keeping classes are now finding new sponsors and locations, including food co-ops and urban farm supply stores, such as Egg|Plant, in Saint Paul, Minnesota.

Annual “Tours of Coops,” bringing prospective chicken-keepers to homes where chickens are kept, have proliferated. The first tour appears to have been in Seattle, in 1999. “A Street of Dreamy Coops” featured 12 to 20 chicken-keeping households who hosted visitors in an “open house” format. By 2008, the tour drew hundreds of visitors, including over 150 to one yard alone (personal communication, Luetjen, 2003). Since 2004, similar annual events have been organized in Portland, Minneapolis/St. Paul, Madison, Raleigh, Albuquerque, Chicago, Pioneer Valley towns (Western Massachusetts), and elsewhere. In cities where municipal codes prohibit chicken-keeping, networks of individuals and organizations have formed to advocate for lifting such restrictions, often with hard-won success.

Numerous national-scale websites and publications also have arisen to share and disseminate information among chicken-keepers. The oldest website, BackyardChickens.com, began in 1999. With the explanation, “Originally designed for the urban chicken owner, we’re here to help and support chickens in any backyard!”, its Forum has grown rapidly, to more than 13,000 members and over 770,000 posts by July 2008, and 145,000 members with well over 8 million posts by July 2012 (Ludlow, 2012). *Urban Farm* magazine appeared in 2009, a new urban-focused publication of Hobby Farms, Inc., for “those in the city and suburbs who want to raise chickens, grow food for themselves, support local ag and live more sustainably” (HobbyFarms.com, 2013). Since the late 2000s, many urban chicken-keepers have begun blogs (e.g. Urbanchickenunderground.blogspot.com, PluckandFeather.com, and Urbanhennery.wordpress.com), featuring testimonials, photographs, and information by and for NUCKs.

Studying NUCKs

Despite this rapid growth of resources, this activity largely remains officially undocumented. More cities are starting to keep records of chicken-keeping through permits applied for and granted, but there is no comprehensive database of chicken-keepers at city, state, or national levels. Not every city requires permits and many households may keep chickens without a permit. This makes it impossible to undertake a statistical

sampling design even today. Consequently, the findings of this study do not make any claim to be representative of all NUCKs.

Further, it is important to note limitations and advantages of the timing of this study. Field research was conducted in 2003, at the beginning of the recent explosion in urban chicken-keeping. Thus, the NUCKs in this study can be considered early adopters, preceding the growth of the local food and urban homesteading movement, and the existence of well-developed networks of support and information, all of which subsequently reshaped the urban chicken-keeping landscape. We do not claim that the imaginaries motivating such early adopters and their enactments apply to contemporary NUCKs. Yet, this study provides unique insights into the moment of renewed initiatives to bring productive animals back into the city and realize alternative imaginaries of urban life.

The findings reported here draw on multiple sources of information. First, the lead author conducted participant-observation in a variety of chicken-keeping activities, including attending chicken-keeping classes in Seattle and Minneapolis, viewing backyard coops in St. Paul, Oakland, Minneapolis, and Seattle, visiting urban farm stores that cater to chicken-keepers in St. Paul and Oakland, being an active member for more than three years on the Twin Cities Chickens listserv, and keeping chickens herself since 2006.

Second, we draw on a fairly comprehensive collection of newspaper and magazine articles³ and numerous informal in-person conversations with urban chicken-keepers in Seattle and Olympia (WA), Minneapolis and St. Paul (MN) and Portland (OR) in the early 2000s. We also followed the earliest urban chicken blogs and websites starting at that time, “BackyardChicken.com” and “TheCityChicken.com,” documenting narratives of chicken-keeping experiences shared by people from across the country. These stories provided both context and a range of affective experiences—what narrators found notable or memorable.

Finally, we undertook in-depth interviews and observations with members of eight chicken-keeping households, five in Seattle and three in Portland (OR). At the time these interviews were conducted in 2003, in the absence of chicken-keeper organizations, with chicken-keeping illegal in many cities, and no mailing lists or central locations where potential participants met, recruiting participants was a challenge. Most chicken-keepers drove to feed stores on their city’s fringe for feed and supplies, but these stores primarily served suburban residents or hobby farmers. Further, though we had met a number of urban chicken-keepers who knew of others, our Institutional Review Board prohibited snowball sampling from these contacts; we were required to limit recruitment to posting fliers or notices in newsletters and websites. We were able to find only three “meeting points” for urban chicken-keepers in the United States: Seattle Tilth, “BackyardChicken.com” (national scope) and “TheCityChicken.com” (based in Portland). With permission, we posted advertisements on both websites. Seattle Tilth agreed to e-mail their list of hosts of that year’s coop tour (approximately a dozen households). In total, we received 17 responses, most (14) from the Seattle or Portland areas. We decided to focus on these as a regional cluster, excluding single responses from three other cities—San Diego, Phoenix, and Minneapolis. We further eliminated three who were from semirural suburbs rather than central cities. Of the 11 remaining (seven from Seattle and four from Portland), we were able to complete eight in-depth interviews.

We acknowledge the limitations of this recruitment method, and suspect that it favored a particular population—White, middle-class, college-educated persons, with Internet access and who would have sought information about chicken-keeping through a class. Thus, our purposive sample under-represents those without internet access or whose

knowledge of chicken-keeping was passed down from parents, including immigrants and low-income long-term residents. The racial bias is reinforced by Seattle and Portland being two of the five “whitest” United States cities (66% and 72% of the central city population, respectively, self-identifying as White, non-Hispanic in the 2010 Census).

These interviews lasted between 70 and 90 minutes, conducted in person and over the phone. Interviews were semi-structured, with 20 open-ended questions including: “Why did you start keeping chickens?,” “What benefits do you get from them?,” “What do your neighbors think?,” “What do they say to you about the chickens?,” and “Have you encountered any problems with keeping chickens here? Such as?” We also included two Likert-scale questions, asking participants’ perceptions of the safety, healthfulness, ethics, and expense of “regular grocery store eggs” and of eggs from their own chickens. Each in-person interview was complemented by a tour of the yard, coop, garden, and chickens. The first author observed and recorded the owners and their children interacting with the chickens—feeding them, picking them up, and demonstrating various features of their coops, runs, compost bins, and other aspects of their backyard systems.

All households interviewed lived within the city limits of Seattle or Portland, all but one owning detached single-family houses with yards. Lot sizes averaged 5,000 square feet, several being extra-long or extra-wide. Each interviewed household had taken up chicken-keeping within the preceding three years. Each kept between three and eight chickens, all hens except one household whose neighbors had approved their rooster. Heads of households and partners were in the age range between 29 and 55, with annual household income ranging widely from \$20–30,000 to over \$120,000. The majority of primary participants had completed a bachelor’s degree; all were born in the United States. All were of Euro-American ancestry, although two were married to immigrants who had some experience with chicken-keeping in their home countries. In order to ensure privacy, we use pseudonyms in attributing quotes, except for Larry, who wanted his real name used. Interviews were transcribed and manually coded together with field notes from informal conversations and observations. Through multiple close readings, we refined codes and identified the themes and concepts discussed below.

Happy chickens and healthy food

The international corporate agri-food system is a particular embodiment of capitalist relations of labor, nature, regulation, capital, discourse, symbolism, and emotion. This system has material impacts on food, from the intimate scale of taking food into our own bodies to vast international flows of capital and commodities. Just as dominant “capitalo-centric” discourse more broadly frames alternatives to neoliberalism as “deviant or exotic or eccentric” (Gibson-Graham, 2006, p. 56), this corporate food system has created a powerful productivist discourse narrating how large-scale agri-industry is the best, and even the only, way to feed the world (Tomlinson, 2013). Opposing this dominant narrative, study participants critiqued the corporate food system, and were inspired and passionate about alternative imaginaries of a food system that emphasizes ethical treatment of animals, produces higher-quality food, and imparts important knowledge and skills.

“Happy, healthy chickens”—ethical treatment of animals

A primary motivation for acquiring chickens was to enact an ethical treatment of animals. NUCKs vividly critiqued confinement systems, envisioning an alternative in which the animals have a better life. Donna illustrated this two-part imaginary:

The fact that they typically in production houses – you know, you’ve heard the horror stories. Sometimes, they de-beak them, they’re so weak they can’t stand on their feet, they’re deformed, once they’re done they’re eaten. You know, I said, I want happy healthy eggs from happy healthy chickens. . . . I thought about this for years – I thought, if I ever have the opportunity to have a back yard that’s big enough, I want my own chickens so I know they’re happy and healthy, and they’re just giving us eggs cause they’re nice versus these poor things that never get out and run around. So that’s really the main reason we did it.

One of the primary ways that NUCKs tried to raise “happy healthy” chickens was to provide spacious and comfortable housing. For commercial chicken operations, one prominent textbook recommends a minimum floor space of 60–70 square inches (less than ½ square foot) per laying hen, and discourages providing perches, as hens could lay while perching, resulting in cracked eggs (Bell & Weaver, 2002). Measured against these industry standards, NUCKs provide luxurious accommodations. Backyard chicken websites and books often recommend four to five square feet (576–720 square inches) for each bird in the coop. Between the coop and the run, most NUCKs interviewed for this study went far beyond this guideline. The six flocks with access to an enclosed coop and a fenced run averaged 28.8 square feet per bird (ranging from 15 to 61 square feet). The two flocks that lacked a fenced run had access to a fenced yard all day long—approximately 1,200 square feet for just a few birds. All NUCKs provided perches for their birds to roost on, as well as nest boxes with straw or other bedding.

There is no question that chickens kept this way are better off than those in chicken factories (Boyd & Watts, 1997; Noske, 1997; Watts, 2004). Nevertheless, they are owned as private property and they are enclosed, dependent on their keepers, literally for life or death. Does this mean they are tied in with capitalist social relations and systems of exploitation? We suggest otherwise: their eggs are not sold, and for most NUCKs the cost of building the coop and maintaining chickens far outweighs any cost savings of backyard eggs. Rather than a money-making practice, it usually constitutes an ongoing expense. Second, as argued below, the fences are less about controlling privately owned animals, than protection from predators.

Another way that some NUCKs tried to treat their chickens ethically was letting them rest from laying during the winter. As hours of daylight grow shorter in the fall, hens naturally stop laying until longer days return. In commercial operations, laying hens are kept under artificial lights year round to maintain egg production. At least two of the participants made a conscious choice not to use lights with their chickens. Donna reflected,

If they’re not forced to produce, produce, produce, my theory is, instead of having an egg span of maybe three or four years, that if I take care of them and they lay whenever they want, they may lay longer than the expected time if they’re happy.

Another significant act of caring for the chickens is the decision to take them to the veterinarian when sick or injured. Within our eight households, there was a gender difference on this issue: all four women had taken (or said they would take) a chicken

to the vet, whereas none of the four men had. Audrey felt a responsibility to provide the same veterinary care for her hens as for other pets:

Well, I've just sort of accepted that they're a pet, and you have that responsibility to treat them like a pet, and that, yes, you're not going to just let them croak. I mean, if they're suffering or they're hurt you're going to get 'em looked at.

All four men seemed to demonstrate a greater willingness to put an animal "out of its misery" than the women, although the men would try to help the birds. When Tristan had two "runtish" chicks, he obtained medication for them, "to try to give them an extra little boost to see if they could get a little bit bigger and survive," but "I think that's probably as far as I would go for them. I wouldn't let them suffer. I would probably kill them before I would sit there and let them suffer through something." In every case of illness, both male and female participants saw the chicken as an individual who was in trouble and needed some kind of care, in contrast with large commercial chicken facilities where some "loss" is an expected business expense.

Many participants, relatively new to chicken-keeping, had not been through a chicken's illness more than once. Just as chicken-keepers' feelings about the birds can change, for example, from backyard animal to pet, their perspectives on veterinary care may also change as they gain experience with home remedies for chickens' illnesses or injuries. For example, Sarah once took an egg-bound chicken to the veterinarian, paying over \$100 for the vet to extract the egg with a lubricated finger. Having observed this, Sarah felt that she would try the procedure herself if it ever happened again.

Whether or not they chose to provide veterinary care, or use lights to keep the chickens laying through the winter, all participants strongly believed they were providing a healthier, happier life for their chickens than birds would experience in commercial settings. This commitment to ethical treatment is one of the strongest themes throughout the interviews.

Knowing healthy food

Performing another critique of the dominant food system, NUCKs were concerned about the quality of their food, and disliked the idea of it being produced in distant locations by unknown means. Participants believe their chickens' eggs are far superior to grocery store eggs in terms of health, safety, and taste. Audrey comments that she enjoys the eggs from her own chickens because, "I know where my eggs come from. I know what they ate, so I know what's in 'em." Respondents unanimously felt their own chickens' eggs were both "healthful" and "safe," in sharp contrast to how they perceived eggs produced by the dominant food system, believing that their quality also means better taste. During Sarah's interview, her roommate interrupted us to exclaim, "Did you talk about how *good* the egg is? I feel like the eggs at the store [are] really gross now. It's not yellow and it's got like extra water in it. It's weak." In response to Likert-scale questions about how they perceived the quality of their eggs versus nonorganic grocery store eggs, participants' responses reveal strong preferences for their homegrown eggs.

Beyond this, participants valued the opportunity for themselves and their children to learn where their food comes from, how food is grown, and how to prepare it from scratch. NUCKs expressed dissatisfaction with the increasing dependence of urban residents on a corporate food system that leaves urban eaters vulnerable to forces beyond their control. As Sean observed,

In the past few generations, as more and more of our food seems to be coming from supermarkets, and that wall between the natural world and the city seems to get more entrenched . . . people in the city seem to be more separated from agriculture. And there's this idea that in the city you should just get your food at the store and I find that real sad.

For NUCKs with young children, a principal motivation for acquiring chickens was the educational opportunity. They want their children to understand the science of soils, plants, and animals, growing cycles and reproduction. Related to this ecological knowledge is parents' desire that their children develop practical skills of growing and cooking food, insuring some degree of independence from the supermarket. Thus, when Larry mentioned that his wife planned to slaughter any birds that turned out to be roosters or grew too old to lay eggs, his daughter Clover and son Sven were aware that their mother wanted them to participate in the process.

Clover: [Mom] sounded like, "now I want to teach you kids how to take off their feathers" and all that stuff.

Sven: Yeah, "useful life skills."

Finally, parents expressed a desire for their children (and city residents more generally) to gain a more philosophical sense of "where food comes from," by appreciating that eggs and meat come from animals and that those animals have lives. As Gill put it, "to realize that a chicken . . . it's a *chicken!*," and Gill's partner Matthew reflected,

One of the major purposes of getting them certainly was so that [our daughter] realized that food doesn't come from the grocery store. . . . I think it's doing what we expected it to do, which is change her understanding of where food comes from, in that meat is from animals.

Urban backyard (agri-)ecosystems

As indicated above, participating NUCKs were critical of the environmental problems associated with large-scale agriculture, and sought to enact alternatives by integrating chickens into their own backyard ecosystems. NUCKs repeatedly cited three ecological discourses: "food miles," nutrient cycling, and pest control, among their reasons for acquiring hens. Their experiences of keeping chickens, however, broadened their urban ecological imaginary in ways they had not expected.

NUCKs critiqued the processing, packaging, and long-distance transportation typically associated with industrial agriculture. Sean articulated this critique through an alternative vision of how cities' food needs could be supplied in more ecologically sound ways.

What I would like to see is community gardens with chickens and local farmers' markets and people eating their own home-grown foods rather than trucking in all the food from thousands of miles away in trucks and other forms of transportation. I'd like to see more local food production.

NUCKs explicitly tried to minimize both external inputs (with the exception of chicken feed) and waste, contrasting home production with the energy expenditures involved in the packaging and long-distance transport within the dominant food system.

Participants also emphasized their chickens' ecological role as "recyclers," eating scraps from the kitchen and the garden. All subjects used the chickens' droppings as organic fertilizer for their vegetable gardens. Donna noted,



Figure 2. Sean's greenhouse doubles as a chicken coop.

Source: Author.

Their poop – that's the other thing. There's no waste with these guys. I just dump it on my compost, and then I have a really excellent compost for the plants and my vegetables.

Donna also saved her chickens' eggshells, baked them and fed them back to the chickens as their calcium supplement, instead of buying crushed oyster shell. Sean in Seattle captured his chickens' body heat to heat the greenhouse doubling as their coop (Figure 2). NUCKs enjoyed seeing a productive backyard system at work, reducing their purchases of commercial feed and fertilizers by “recycling” kitchen scraps and manure.

Third, participants used chickens for pest control, eating garden slugs and various insects (Figure 3), as Audrey explained:

They dig up the garden, they eat the grubs... One of the guys that came here on the chicken tour was an old farmer, he was in his eighties. He said, 'Oh yeah, I would always let my chickens free-range for one hour at dusk because they would eat all the bugs, and I never had a bug problem.' So I've started to do that where I've let them out, like at dusk when I get home from work just so they could eat the bugs.



Figure 3. Hens foraging for slugs and insects alongside Sean's vegetable garden.

Source: Author.

Enrolling chickens as pest control was not always simple, as they also scratch up and eat garden plants. NUCKs thus had to plan how to contain the chickens and move them around the garden seasonally before, after, or in between crops. This four-way challenge involving people, chickens, bugs, and garden plants—each with its own agenda—prompted NUCKs to expand their urban ecological imaginary.

Adding chickens to a backyard ecosystem means inserting them into a complex “multispecies” web of predation and parasitism, in which hens are both predator and prey. Chickens are susceptible to various parasites, including mites and intestinal worms. Mites, often introduced into a coop by mice, are a persistent population that can multiply quickly into tens of thousands on an infested bird. Yet, chickens sometimes eat the mice. Chickens are also subject to predation by a host of larger wildlife, especially opossums, raccoons, and hawks. The day before our interview with Sarah, for example, a hawk had landed in her yard twice, eyeing her hens, who responded with loud squawking. Participants living near undeveloped areas also mentioned eagles, osprey, and coyotes posing a threat. Several NUCKs built extensive fences and predator-proof coops in defense. As Diana put it, “there’s no way in hell I’m doing all this work and then have those guys come in and hurt either my chickens or the eggs.” Urban chickens also interact with domestic pets such as cats and dogs. Participants in this study reported that their chickens were generally able to scare off cats, but dogs were sometimes a concern. Andrea had nursed back to health a chicken who had been badly bitten by a neighbor’s dog. She became wary even of another “friendly” neighborhood dog, who “seems fascinated” by the chickens, so she does not let them free-range in the yard when she’s not with them.

For the most part, participants did not leave their chickens’ role and experience in this multispecies ecosystem to “nature” or chance. NUCKs often invited their chickens

to scratch behind them for worms when they worked in the garden. When their chicken got mites, NUCKs treated them by killing the mites. At the same time, they all built enclosed coops and nearly all kept their chickens in well-fenced runs (top, sides, and buried into the ground), to guard against predators. These management practices demonstrate NUCKs' understanding of the "liveliness" of the city, an understanding that emerged from their experience and practices of care for the chickens. Though hawks, mice, and mites may not have been part of their original ecological imaginary of the city, this imaginary was expanded through the multispecies urban (agri-) ecosystem.

Reimagining the economy and urban life

The 1980s and 1990s saw neoliberalization, both through discourses of competition and rapid economic growth, and the material reality of ramped-up consumerism, privatization, and commodification. As Gibson-Graham (2006 [1996]) pointed out in *The End of Capitalism (As We Knew It)*, narrations of neoliberalism as unstoppable convinced many, both proponents and opponents. Inspired by their critique, a growing chorus of scholars argue not only that there is still a considerable "outside" to capitalism, but also that we need to better recognize, support, and extend noncapitalist social relations and productive activities (Williams, 2005). Economic geographers have extensively documented (and in some cases are actively helping build) community and diverse economies, including local time banks, unpaid care work, self-provisioning, cooperatives, barter, and so on (Hughes, 2005; Leyshon, Lee, & Williams, 2003).

In parallel, Juliet Schor argues that it is "no longer a viable option" to continue with the current rules and practices of the dominant capitalist economic system, including the environmental destruction brought about by constant growth (Schor, 2010). Rather, households should lessen their participation in the "work-spend cycle." Schor encourages people to rediscover value in "neglected assets" of time, creativity, and social relationships. Instead of working long hours and buying what they need, Schor suggests choosing instead to "make, rather than buy, share, rather than spend, and build social relationships." (Schor, 2012).

The NUCKS in our study discovered value in precisely these areas through chicken-keeping. They emphasized the pleasures of building relationships with neighbors and of companionship with animals, they commented on the unexpected benefits of barter, and reflected on their attempts to resist commodification of chicken-keeping. They see their practices as welcome alternatives to the individualism and associated isolation, consumerism, and stressful pace of everyday urban life in the contemporary capitalist city.

Human and more-than-human sociability

Our study not only shows that chicken-keepers' imaginaries shaped their practices, but also that these practices also shifted their imaginaries and produced surprises. This is especially apparent in the planned and unplanned ways chickens offered opportunities for interaction and social engagement with others, both human and nonhuman. NUCKs repeatedly mentioned that their chickens had become an important catalyst for neighborhood sociability. People passing by stopped to take a look at the chickens and chat. Neighbors (some elderly), who had grown up around chickens, told the chicken-keepers that they enjoyed hearing the sounds of the flock, which brought back vivid memories. Neighborhood children especially were drawn in, and social relationships developed

within and across generations. Beyond the immediate neighborhood, NUCKs reported that telling stories about their chickens with friends, neighbors and co-workers was a fun social event.

Sometimes this social interaction was intentional. For example, one household planned to build its coop in the front yard in order to encourage neighbors' visits. Matthew explains:

For us, we wanted there to be neighborhood interaction, particularly with the kids in the neighborhood. So putting it in the backyard is a big disadvantage because you can hear them from the street, but you wouldn't come into somebody's backyard without permission. If they were out front – which a number of people we know have done with their chickens – then it becomes more of a neighborhood sort of thing, and people will stop. And there are lots of people who walk their dogs and spend time in the neighborhood, so it would be an interesting stopping point for people.

Generally, however, the new sociability associated with the practice of chicken-keeping was unexpected. Audrey, reflecting on feelings of isolation from neighbors, stated that her chicken-keeping enabled conversations and social connections that would not have happened otherwise.

I mean, like the guy across the street, for two years he never said anything to me, and then one day, he says, 'you know, somebody told me you have chickens. And, you know, I would hear chickens and I couldn't figure out where those chickens were.' And when I told him about the eggs, he said, 'Oh, I'd love some eggs!' So I mean, it's like, we've established a relationship now based on that.

NUCKs also repeatedly mentioned the unexpected pleasure they experience in their relations with chickens. Often this reflected a recognition or awareness of the animals as agents (if not subjects), with their own thoughts, feelings, and activities. Donna describes a daily routine:

Every morning they greet us. If you're in the house and you're getting coffee started, they'll start "bock bock" because they know you're awake and they want you to feed them, . . . "Oh boy, our people are up." Then we go out and let them loose and do whatever. So we have a routine. . . . They'll come up and look at you. . . . They're funny and they're kind of goofy, . . . the things that they do.

Nearly all the participants reported "realizing" or "learning" that their chickens had individual personalities, a new understanding that influenced their relationship. As Sean describes:

Like two of them will walk up to me, and they kind of squat with their arms, wings out, cause they want to you pick them up – Peabody and Autumn. I can pet them, but the other ones don't [like it]. They all have very distinctive personalities. So that's like definitely a benefit I didn't really think about. I just thought, "oh, it would be cool to have chickens for eggs." I didn't think . . . that I would bond to them as much.

When chickens ran over to "greet" people, watched them, or indicated that they would like to be picked up, humans responded with affection. When chickens feel contentment at being held the pupils of their eyes pulsate larger and smaller, which can be seen and—like a cat's purr—invites further petting or pleasant interaction with a human. Whether an

individual hen showed interest in people or enjoyed being held was often part of defining which chickens were keepers' "favorites." When Larry, Eric, and Clover discussed whether they would ever butcher any of their chickens, they talked about which were "nice" and which were "skittery" or did not like to interact with humans, agreeing that the former might "get preferential treatment" if they needed to reduce the size of the flock.

Participants also expressed experiencing peace and relaxation in animal spaces, a welcome respite from the stress of everyday urban life. Tristan reported,

Mostly it's relaxing. This summer we had a blast. We'd sit out there in the evening and just as a family and have a glass of iced tea and watch them run around. The girls just love it. The girls think it's fantastic. So, it's somewhat relaxing to see them, and it's just, in the middle of stressful living in, having a busy life – Portland's not too hectic of a pace, but just life. My wife and I both work, we work more than 40 hours a week and our daughter's in school and it's just, in the evening and on the weekends ...[it's] a nice thing to bring us all together.

In addition, some NUCKs associate chickens with the simplicity and slower pace of rural life. As Audrey put it:

The clucking, the noises they make, that's kind of soothing, because of industrial noise and planes, I hear clucking. So it's kind of the yin and yang thing, it kind of gives you a little sanity in the midst of this urban environment that we're in. ...They're very bucolic. They're just, you know, the first month I had them, I would just come out here after work, and sit there and watch my chickens. It was very stress-relieving. Especially when you're kind of in a high-stress office environment. It's amazing how quickly it can calm you down.

Audrey's emphasis on stress-relief reflects an overarching concern with the busyness and pressures of contemporary urban life. Research in environmental psychology has analyzed the "restorative capacity" of natural landscapes, identifying particular circumstances that create restful conditions for people's minds after periods of stress or hard concentration (Herzog, Maguire, & Nebel, 2003; Kaplan, 1995). Two of these, "soft fascination" and "being away," might help to explain the sense of relaxation that NUCKs report.

"Soft fascination" is clearly relevant. In a wide range of studies, Kaplan and others have found it is more restorative for subjects to observe mildly active scenes, such as leaves rustling in the wind or birds at a birdfeeder, than to experience complete absence of stimulation. Having one's "fascination" or attention held with no effort engages one part of the brain with pleasant, absorbing distraction, while other tired parts get to rest and rejuvenate (Kaplan, 1995). Watching chickens pecking around a backyard, making quiet noises and interacting with each other, may well be described as a restorative "soft fascination" activity. For Donna,

there's this real zen, peaceful thing that goes on with them. ...They're in the yard right now scratching – it's just kind of soothing. ...It's almost like a fish aquarium would be, where you just get enjoyment out of them, watching them.

The sense of "being away" is often found in "natural" settings or "settings that call on mental content different from that ordinarily elicited" (Herzog et al., 2003, p. 159). While "the seaside, the mountain, ...and meadows are all idyllic places for 'getting away,'" Kaplan observes, "the sense of being away does not require that the setting be distant" (1995, p. 174). Chicken spaces are islands of calm within the city, psychologically distant from NUCKs' nonagricultural workplaces. After a day in the office, going into her backyard to watch hens scratch and peck is enough of a space "away" for Audrey to

experience psychological restoration, “a little sanity in the midst of this urban environment.” These new more-than-human social spaces outside the stresses of the urban everyday provide peace, enjoyment, and mental restoration.

Sharing and bartering eggs

Sharing and bartering their chickens’ eggs created other, again unexpected, sociabilities. Backyard flocks often lay more eggs than a household can consume, so participants shared eggs with relatives, neighbors, or co-workers. Sharing was described as a pleasure for everyone. “You know, we give our eggs to our neighbors. We keep pretty good relationships with them too” (Sarah, Seattle, 2003). A number of households also arranged systems of barter. One family traded eggs for other foods:

Gill: We actually trade the neighbor cause his tomatoes are ripe, so I trade him a half-dozen eggs and he gives us tomatoes. . . . We trade [my husband’s] mom, you know, for eggs, and, or give her eggs, and

Matthew: . . . she brings crab down from. . .

Gill: . . . from the island. Or salmon or clams or something, and so. . .

Matthew: . . . we use it as a bartering tool.

These kinds of noncapitalist exchange are meaningful at several levels. Participants are able to exchange eggs for other desirable foods that they would otherwise have to buy, and that they may see as higher quality than store-bought. Additionally, people form or strengthen social connections through these exchanges, experiencing pleasure from greater sociability and the simple act of sharing.

Resisting commodification

Notwithstanding the many ways that urban livestock-keeping enacts alternatives to dominant economic imaginaries, the practice nevertheless is embedded in a society strongly pervaded by consumerism and neoliberalizing capitalism. Thus, it is easy for ostensibly alternative practices to become commodified. This is apparent in advertisements in chicken-keeping catalogs and on websites, such as MyPetChicken.com and ShoptheCoop.com, selling a wide array of feeders, waterers, warming lamps, medical supplies, nest boxes, thermostats, and chicken-themed decorative items. Many sites imply or state directly that they are aimed at urban chicken-keepers or small-scale backyard flocks. A growing number of small books, “how-to” guides, and magazines for new chicken-keepers also are now marketed widely.

Perhaps the biggest single expense for new chicken-keepers is the coop itself. From the entry-level “Eglu Go” for two to four hens at around \$300 (Figure 4) to the elegant Savannah Georgia Mansion at \$3,500 (Figure 5), pre-fabricated coops are marketed vigorously in the media serving NUCKs. Many, if not most, of the informational websites, blogs, and chat rooms are supported in part by advertising from coop manufacturers and suppliers of other chicken-keeping tools and materials.

The opportunity to spend money on coops as a commodity is visible among chicken-keepers on the Seattle Tour of Coops. Some of the coops on the tour are heated,⁴ lighted, and architect-designed to match or complement the main house. One participant in this study (the youngest, with the lowest income) was openly critical of what she felt were excesses of some chicken-keepers. Sarah noted,



Figure 4. The “Eglu Go” coop design, manufactured by Omlet-USA.

Source: https://www.omlet.us/images/cache/336/216/eglu_go_green_b921c362.jpg



Figure 5. The “Savannah Georgia Mansion” coop, by Jeremy King, Spring City, Utah.

Source: Photo courtesy of Jeremy King, www.barnyardcollection.blogspot.com

I’ve read some of the articles and the pictures that were taken on the coop tour, and the coops were really over the top. Like really embarrassed me actually. There could be multiple families in developing countries living in the coops, you know what I mean, and be completely happy. And people, white, middle and upper class people in Seattle are building these outrageous coops for their chickens, their pets. . . . I mean, I thought mine was over the top because we painted it and used free siding on it.



Figure 6. Sarah's coop, built mostly from found and scrap materials.

Source: Author.

As with any activity pursued in the midst of consumerism, there is certainly a temptation for NUCKs to spend more. This was a particularly relevant issue for the wealthier chicken-keepers in this study.⁵ In a middle-class milieu, these urban households are surrounded by a culture of spending more and more on pets (Nast, 2006b). Indeed, attending such events as coop tours could raise expectations of the quality and stylishness of coops that new chicken-keepers feel is necessary. Another external (upward) pressure on coop design, mentioned by several participants, was the concern that their coop is attractive enough to keep neighbors happy.

Despite these pressures and opportunities for consumption, however, three-quarters of the chicken-keepers in this study designed and built their own coops. In Schor's words, they made choices to "consume differently," by engaging "more time, more creativity, and more social connection, while also lowering ecological footprints and avoiding consumer debt" (Schor, 2012). Many enrolled friends or family members to help with coop construction, and most used scrap lumber and leftover materials for building their coops, in most cases keeping the cost down to \$50–300 (Figure 6).

My dad [built] the henhouse, ...he had all the wood at his house. ...The only thing we bought was the wire, and I don't really remember how much the wire was. ...Yeah, it was all leftover wood. – Leslie

We already had the rabbit hutch, so all we did was convert it. And all of that stuff we already had – scraps of wood and ...linoleum floors.... And I bought some feeders, so, maybe I spent \$50 on the set-up. – Donna

The NUCKs in this study did not shy away from manual labor. Beyond building their own coops, they muck them out, make and turn compost piles, and spread the compost on the garden. They sort their kitchen trash and take particular scraps to the chickens, others to worm bins, and others to the compost pile. They nurse their chickens when they are sick

or hurt. They spend hours reading books and websites learning how to care for chickens. They talk about getting satisfaction being responsible for the chickens' well-being and in creating low-input and low-waste systems. In resisting commodification, the NUCKs demonstrate that they are not only talking about or "imagining" alternatives; they are building them with their own time, creativity, and labor.

Conclusion

The return of these animals to the city has been largely neglected by urban geographers, nature-society geographers, and even cultural animal geographers, who have focused on other species and spaces, such as pets, pests, wildlife, parks, and zoos. This paper has sought to begin addressing the particular location of productive animals in urban residential spaces, uncovering the imaginaries guiding this socio-natural phenomenon and the co-implication between imaginaries and practices. The latter is an important extension to current research that has focused on how imaginaries make alternative practices possible. We contend that there is a dialectic between imaginaries and practices whereby alternative practices are themselves implicated in the construction of imaginaries.

Our findings suggest that middle-class urban residents are practicing chicken-keeping not simply as an "exotic" hobby or to access eggs, but in order to enact imaginaries of how they think that cities and urban life, agri-food systems, and human-animal relations ought to be. Openly dissatisfied with dominant socio-ecological systems, they took action in their own yards, with their own labor, to enact their imaginaries. We have shown that the practice of chicken-keeping itself both affirmed imaginaries motivating chicken-keeping and rendered unexpected insights. NUCKs felt proud of the "happy healthy" conditions they were able to provide for their hens and the "ethical" eggs this allowed them to consume. They were gratified with the multiple ecological roles the chickens played in their backyard ecosystems, and startled by the challenges posed by the coexistence of multiple animal species in the urban ecosystem. They were also surprised by the development of more intimate relationships with their neighbors and chickens, and delighted to gain a sense of place that is more engaging, connected, and—literally—animated.

The focus of this paper has been the imaginaries and practices of early adopters in urban chickens in a few selected cities. Since the early 2000s, backyard chicken-keeping (and urban livestock-keeping more generally) has proliferated in cities across North America. However, as of yet, no quantitative information documenting the prevalence and geographic distribution (both across and within cities) of urban livestock-keeping in North American cities exists. Furthermore, NUCKs and their allies have successfully advocated for changes in municipal ordinances to permit a growing array of small animals. In 2007, Seattle revised its ordinances to allow dairy goats; in 2009 Minneapolis began to permit honeybees. After a nearly 40-year struggle by urban agriculture activists, Vancouver's city council voted to allow hens in 2010. Portland has long allowed chickens, rabbits, bees, and goats, but the city and county now provide information and support for residents to turn their "backyard into an urban barnyard" (City of Portland, 2012). We suggest that further quantitative and qualitative research is needed to document the proliferation of urban livestock-keeping, to examine commonalities and differences between early adopters and contemporary NUCKs, as well as how practitioners come to terms with unexpected difficulties encountered in urban livestock-keeping.

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Notes

1. We use the term “productive animals”, commonly seen in the urban agriculture literature, interchangeably with “livestock” and “farm animals”. Each term constructs certain animal species in particular ways. “Productive” has the anthropocentric meaning of serving human utility, including food products and labor. No animals necessarily seek to be “productive” in this sense, even as they act productively for their own lives and purposes—building nests, bearing young, foraging, communicating, and so on. Notwithstanding its anthropocentrism, we find the term useful for differentiating these animals from pets, who in recent decades, have largely been constructed as “consumers” (of food, toys, beds, leashes, and so on) rather than “producers.”
2. We define New Urban Chicken Keepers (NUCKs) as households who keep a dozen or fewer chickens within an incorporated city within a zoned residential area.
3. *USA Today*, *The Wall Street Journal*, *The New York Times*, *Seattle Post-Intelligencer*, *Atlanta Journal-Constitution*, and dozens of smaller print media outlets.
4. Heating a coop is arguably a necessity in regions with severe winters. In Minneapolis and Saint Paul, Minnesota, provision of heat keeps drinking water thawed and prevents frostbite when the temperatures sink below 0°F for days or weeks at a time.
5. Four of the eight households had incomes below the medians of Seattle and Portland, and four near or above. The 2003 median family income in Seattle was \$71,900 and Portland was \$65,800, while the national median was \$56,500 (United States Department of Housing and Urban Development, 2013) The eight participants self-identified in the following income categories: \$20–30,000 (1), \$30–40,000 (1), \$40–60,000 (2), \$60–80,000 (1), \$80–120,000 (2), >\$120,000 (1).

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