Plants, food and the repurposing of urban nature: the geographies of foraging and landscape in London

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This dissertation is submitted for the degree of Doctor of Philosophy

Cover image: Foraging walk in Fryent Country Park, Brent, London. Source: Author (2017)

Preface

This thesis is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared and specified in the text.

It is not substantially the same as any that I have submitted, or, is being concurrently submitted for a degree or diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared and specified in the text. I further state that no substantial part of my dissertation has already been submitted, or, is being concurrently submitted for any such degree, diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in and specified in the text

It does not exceed the prescribed word limit for the relevant Degree Committee.

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Marcus A. Nyman
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Abstract

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An increasingly common sight in London is people seeking out and collecting the *uncultivated, unattended* and altogether *unintended* plants growing wild in the multifarious spaces of the city. "Urban foraging", as it has been termed and observed in other geographies, can be read as a reflection of various concerns. It may be an expression of hipster gentrification, a radical reclamation of communal space, a re-finding of lost flavours and traditions, a reflection of a city diverse with cultural plant uses, or a shared desire to reconnect with nature, both spiritual and material. This research uses the figuration of "urban foraging" to plot a path through the uneven social and material landscapes of food, nature and the city. In so doing, it examines what foraging might tell us about the material affordances of the city, how we do or might differently feed ourselves, how urban space is designed and governed, and the alternatives politics, performance and possibilities of urban nature.

Drawing upon a year of mixed-method field work in London, including participant observation with urban pickers and foragers, interviews with a range of actors, archival and visual resources, and auto-ethnographic walking and learning, it offers a qualitative account of the activities in question and the city more broadly. The research builds on existing work concerned with urban gathering practices in North American cities, and nascent research from other geographies, applying some of this insight to the situated histories, ecologies and knowledges at work in London. While political ecologies, and urban political ecologies, provide a valuable theoretical basis for addressing issues of access to nature, the status of the urban forest, and different epistemic traditions, urban foraging reveals a more complex picture. Looking towards "relational materialist" thinking, it helps reimagine food as a contingent event—a *becoming*—replete with ontological uncertainty. At the same time, it undermines stable readings of the food system by re-inscribing moments of human-plant encounter with affective meaning, bearing implications for efforts to recalibrate urban foodscapes and food-ways.

The thesis attends to the various facets and 'affordances' of urban foraging in London, including the praxis of walking and mobility, botanical encounter and knowledge, culture and memory, the history and (re)emergence of the urban commons, and the importance of how language and etymology intertwine themselves in all of these. Fundamentally, the research offers an interpretation of urban foraging as a form of figurative and literal "poaching"— to borrow the term from De Certeau—and means through which to make sense of the city, which unsettles the increasingly numerous representations of London as an ecologically coherent entity. In so doing, it also reveals a performative element that invokes varying visions of rurality connecting the city, at least symbolically, with temporally and geographically distant spaces. Rather than the revival of culturally or historically 'authentic' practices, urban foraging—through the enactment of varied ethnobotanical knowledge and skill—is contributing to the emergence of novel cultures of urban nature. As such, these plant collection practices bear implications for how the city's green spaces are conceived and managed.

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It supposedly takes a village to raise a child and I suspect it also takes one to complete a doctoral thesis. The contribution from others are innumerable and I could not hope to fully express my appreciation for their help, insight and kind words.

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Introduction

What sorts of engagements—what sorts of relations—do different compositions of urban nature afford us? Such a question sits at the heart of this research and speaks to the changing forms and status of natures in cities and urban centres the world over. As we learn to live in fundamentally altered environments, and alongside fundamentally different forms of life, we are increasingly confronted by the ethics and practicalities of sharing space. This research is far less ambitious than work attending either to the Anthropocene or any impending environmental Apocalypse, but these grander narratives inflect and infuse the milieu upon which the gaze of this research is fixed. It is rather more concerned with some of the modest practices in which many people are engaging to help make sense of an urbanised world, to reclaim a part of it and to reconnect with that from which they would feel otherwise distant. Food is one such distancing. Whether driven by curiosity, habit, hunger or political expression, urban foraging—finding and making use of the uncultivated plants growing unattended in and around towns and cities –is one such set of practices.

Research emerging from a range of fields is increasingly demonstrating—in both cultural and scientific terms—the importance of access to and interaction with nature for human wellbeing (Russell et al., 2013; Schleicher et al., 2018). Such interactions, while replete with cultural, psychological and symbolic meaning, tend not to be conducted in abstraction, without reference to material forms, spaces and beings. It is with this in mind that this study takes plants—rather than, say, food—as its starting point. As later chapters will explore, relations such as those expressed through food are not inherent to the plants they enrol, which have life forces and importance beyond human utility, attention or appreciation. Foraging activities may be as old as humanity itself but members of the kingdom *Plantae* are even older and, in the context of geological time, will likely outlive us. In the aftermath of destruction, disasters and decline, it is most often plants that lead the succession and reoccupation of such spaces, indifferent to the intents and designs of human planners. That plants species might survive and thrive in urban environments is testament both to their resilience and adaptability, and the emergent possibilities of and for life within novel urban assemblages. That humans might turn to seemingly ancient foraging strategies for subsistence or pleasure amid these assembled landscapes interweaves an added layer of ecological complexity into these worlds.

This research is not only a story of plants and food but also of a city – and by extension the city as a unit of geographical analysis. London is familiar to many and well-studied but its singularly recognisable skyline and historical global status belie the multiplicities that have contributed to its history and its present. It is, in many senses, not a single city at all but a composite of cartographic fragments and archaeological layers, entangled in its material and

social infrastructures. Neither plants nor foraging (nor indeed a single piece of research) can tell a complete story of a city as rich, varied and idiosyncratic as London. However, they do add texture to the city's more prominent and established narratives. While urban plants and the varied modes through which humans make use of them are a meaningful matter *per se*, they also open up various other critical questions for the city's future, not least as a critical counterpoint to prevailing and emerging "visions" of the city and its ecologies.

It quickly becomes clear when encountering much of the foraging across London that its overall scale, particularly in the context of its calorific or nutritional contribution to the food system, is not its most pressing aspect. It is a largely marginal concern, even among migrant communities that have otherwise maintained forms of foraging within their homelands or places of origin. However, its marginality and limited quantitative significance should not be seen to reduce its qualitative meaning. Indeed, as discussed at some length later, its marginality forms part of its qualitative and symbolic value. As exposed during the course of the thesis, urban foraging exceeds itself in four key ways - beyond the objective overall volumes or nutritional contribution it does or could make. Firstly, it is an embodied, localised practice, meaning while its impact and value across the whole of London may appear small, its immediate impact on and within situated ecologies can be more significant. Secondly, it is not only a material practice but an imagined one, affecting the way we envision the encountered environment and the broader horizons of the city. Thirdly, foraged ingredients may bear a marginal utility, especially if they offer specific cultural meanings, flavour, use or rarity. Despite the overt growth in the popularity of wild food, "invisible" wild-sourced ingredients continue to play key functions in the manufacture of various products in contemporary food systems (Jenkins et al., 2018). Finally, beyond merely its material contributions, foraging may well bear a particular demonstrative or catalytic power by revealing the gaps, uncertainties and contradictions within both the food system and our framing of nature. It is likely for this reason, as discussed further in chapter 4, that artists in particular have concerned themselves with the matter of urban foraging in the degree it disrupts received dualisms related to the city as an ordered, human-designed space.

It is with these qualities in mind that the research has been conducted, focusing much more on what urban foraging means and how it is conducted, over an emphasis on its immediately quantitative implications. The research is therefore based on a mixed-method, qualitative approach, including participant observation and semi-structured interviews, supplemented with reference to archival, visual and secondary sources. It also incorporated auto-ethnographic elements, particularly centred on botanical walking and learning, and consultation of online digital forums focused on organising urban foraging activities. The

relative *absence* of a unified or coherent "community" of foragers in the context of London meant the fieldwork took on an iterative quality—learning as I went— and dictated in no small part by seasonality, local conditions and the availability of potentially edible plants and the people looking for them. As well as participating in urban foraging activities as a method, part of the methodological framing and sampling involved searching out presences, patterns and practices of foragers and foraging, leading me down varied figurative and literal tracks, and thereby mimicked some of those very activities at a different scale. I was, in effect, foraging *for foraging*. The final sections of this introduction outline the "messy" methodological considerations and decisions involved in the research, while further reflection on methodologies can be located at various points, including the conclusions. Chapter 1 sets out in detail the broader popular context in which urban foraging has gained profile in recent years. This is positioned alongside the emergence in the past decade, predominantly in North America, of an interdisciplinary concern around urban foraging, influenced by the political ecology of urban forests and forestry and more-than-human geographies of plants and food. The chapter outlines some of the context of London itself and the specific research questions to which the research attends.

Chapter 2 takes on the politics of food and biodiversity in the context of the changing status of nature in London. This shift takes place amid a wider rethinking of the meanings and ontologies of urban nature, as well as the models and metaphors that describe them. Moves to reconfigure urban landscapes as ones of food *production*, beyond their more common framing as landscapes of consumption, reveal the contingent and unstable qualities of food, as well as the fractured nature of urban space. The empirical insight in this chapter draws on the various informal fruit gleaning networks active in London, as well as the ambiguous status of invasive, but in principle *edible*, plants such as Japanese knotweed (*Reynoutria japonica*). A relational reading of urban foraging demonstrates the unscripted materiality of plants encountered in the city, and an absence of a singular or authoritative narrative surrounding their appropriate spatiality, purpose and use. Urban foraging highlights both the already-productive aspects of London's nature when production is interpreted outside of the narrow confines of human design and purpose, and the ways in which urban landscapes generate uneven imaginaries of abundance and scarcity. Despite the efficiency-bearing effects of agglomeration and density, the unstable materiality and cultural resonances of food fall ambivalently on the fragmented spaces of a city – both enabling and undermining a sense of a coherent foodscape, and blurring the limits and meaning of *food waste*. The existing scientific and policy gap between urban food growing and urban biodiversity remains unbridged amid the multiple renderings of the "ecological city" at play in London.

Chapter 3 focuses on the productive intersection of mobility, language and botanical encounter. Taking the rise in interest in walking—in academic circles and wider society—as a starting point, the chapter considers what it means, and what "foraging" means, to walk with plants in an urban landscape. It focuses on some of the subtler spatial, social and phenomenological implications of the various terms captured under the umbrella term of "urban foraging", and the particular "affordances" (Gibson, 2014 [1977]) that urban environments exhibit for the prospective forager. In doing so, it provides some definitional clarity and offers a tentative framework for categorising the different types of urban foraging encountered through the fieldwork. Key to the themes of the chapter is the understanding—now widely accepted, if not valued—that walking offers a distinct affective and embodied form of knowledge. The final section of the chapter considers these "alternative" knowledges in the face of another type of plant walking explored— urban botanical transect surveys—and how the different "ways of knowing" can be negotiated and accommodated. It confronts the question of so-called "plant blindness" and the potential contributions that either urban foraging and/or botanical surveys can offer to remedy it.

Initially, chapter 4 broaches the theme of "foraging" in London's past. Despite the well-documented informal economies of early modern and Victorian London, the fragments of archival material I encountered suggest that urban plant gathering appears to have long been only a marginal concern. Historical junctures, including the establishment of publically-owned and managed urban parks and the interruption caused by war in the twentieth century, cause some of these fragments to surface but nevertheless make for an incomplete picture of London's past. One theme emerging is a historic cultural and metabolic dislocation of the city and its people from the sources of its food. The arrival and settlement of people in London from diverse places around the world—often places and communities in which foraging is habitually or culturally practised—marks another revealing form of dislocation. Patterns of migration—arrivals and returns—connect London with distinctively rural spaces in geographically distant locations. Unlike the cities in which foraging has been previously studied, indigeneity has a quite different resonance in the context of London. Urban foraging in London reveals how "foraging cultures" do not exist independently of the spaces in which they are enacted - urban landscapes qualitatively modify ethnobotanical engagements. The chapter then explores how urban networks and technologies have engendered new forms of knowledge exchange and acquisition, distinct from communal or kinship models that distinguish many anthropological accounts. Such thinking brings into consideration new ways of thinking of "urban nature" as a categorically and qualitatively distinct focus for research. Despite these distinctions, foraging remains an area symbolically and aesthetically rooted in markedly non–urban geographies, leading to discussion of how, in the context of

London, it can assume a performative quality by enacting quite particular, urban-inflected visions of rurality.

Chapter 5 attends in part to the history of urbanisation and land management in London, with reference to the (often overlooked) process of urban commons preservation. It situates foraging historically within the formal and customary rights of common associated with the English village and rural economies that were ultimately subsumed by the expansion of London's urban fabric. The chapter highlights two examples of historic urban common land in London—Walthamstow Marshes and Hampstead Heath—upon which foraging is practised today. Prior and emerging visions of urban commons partly frame how these spaces are understood, managed and used today. Amid a recent revival of commons scholarship, the chapter unpicks three distinctive and often-conflated intellectual strands. It proposes a pluralisation of the language of "the commons" that incorporates vernacular forms and terms, rather than relying on a universalised (but historically specific and historiographically complex) framing referring to early modern England. The chapter argues that calls for the governance of urban foraging practices through a framework of the commons fail to accommodate the legally, politically and geographically recognised status of historic commons, and the systems of social insurance and reciprocity that underpinned them. If the commons are to offer a guide for contemporary engagement with and management of urban nature, it requires a broader recognition and embeddedness than inherently radical or "alternative" politics alone offer.

The final substantive chapter extends some of the arguments of chapter 5 by considering the ways in which urban foraging provokes or implies alternative futures for the city. It begins by addressing how organisations and communities are *already* reconfiguring spaces with informal plant collection in mind, including community orchards and forest gardening. It then explores how ideas of labour and work— of humans and by extension non-humans—are implicated in foraging and what this might suggest for different readings of work and production. Thirdly, it broaches the question of the ethics and governance of urban foraging in London. The relative marginality and limited impact of current foraging practices means this is not a pressing regulatory or social concern but prevailing green space regulation relies on somewhat disjointed, opaque and uneven management to govern fundamentally contested engagements with urban nature. The final section considers if and how consistency in policy approaches could lend greater coherence and legibility to urban landscapes, as well as foster increased and more confident plant collection by the public.

As they have for similar studies elsewhere, political ecology and urban political ecology provide valuable empirical and conceptual starting points for delving into the practices and

politics of urban foraging (Poe et al., 2013; McLain et al., 2014; Hurley et al., 2015). This is not least because they directly connect to questions of knowledge and access to the material products of the urban forest, and in so doing intersectional questions of food, hunger and power. No doubt foraging connects with concerns of poverty, nutrition and inequality but even where foraged ingredients contribute to diets and subsistence, they do much more than this. It did not take long to realise that to make sense of the phenomena in London, both a more nuanced reading of power is required, and a greater attention to the materialities of plant-food becoming. Swirling around urban foraging are difficult-to-read affects and the material-semiotics of London as a green/ecological city, steeping it in varied and contradictory associations of leisure and work, deprivation and affluence, abundance and scarcity. The ability to conduct urban foraging activities appears to be not so much dictated by the characteristics of foragers themselves but the nature of the landscapes in question, and more diffuse considerations of botanical knowledge, work and leisure economies, time, and cultural and psychological framings of the city. Ultimately, the theoretical contribution the research makes is modest but meaningful. It expands the scope of existing urban gathering studies to include London as a field site important in its own right. In this sense, it is notable historically, politically and economically, and for the ways in which its experience has impressed upon urban studies more broadly, particularly in relation to the emergence of the sanitary geographies of the modern city (Gandy, 2004; Allen, 2008)

The nature of the methodological approach, and the subject in question, inevitably leaves some paths not taken. The account the research provides is necessarily only a partial one and could have been framed in any number of different ways, a theme to which the thesis returns in its conclusions. It amounts to a collage of experiences that, when taken as a whole, go some way to characterise the meaning of urban foraging and the meaning it lends to a city in which it is practised.

Methodological framing

Before embarking on the rest of the thesis, it is helpful to outline the main methods employed during the research and the methodological choices that went into their selection and use. At various points during the thesis, methods and their implications arise as they pertain to the more substantive discussion. Space is set aside in the conclusions for further review and reflection of the methodological choices and if with hindsight or a different focus, other approaches would have been utilised.

As will be clear from the wider context and specific research questions detailed in the following chapter, the methodology was shaped by the understudied (at least in a UK context) and marginal nature of urban foraging. The relatively small population of

participants in urban foraging and its heterogeneity led to a grounded, qualitative methodological framing, drawing on mixed methods to deal with the field's diffuseness. This echoes comparable studies in other cities around the world (see McLain et al., 2012) seeking to understand motivations, cultures and the affective geographies of urban foraging. More quantitative approaches could plausibly be effective in studying urban foraging but the absence of a clearly defined population or community large enough to warrant survey methods made this undesirable. Similarly, others (e.g. Lee, 2012) have approached the study of contemporary foraging in the UK through the lens of biological anthropology, with reference to strategies captured under optimal foraging theory. The urban context and the highly diverse social and spatial conditions of this study precluded such a methodological approach. Nevertheless, the typologies of urban foraging and their social-spatial modalities detailed in chapter 3 acknowledge some of its potential relevance, even if it draws on different kinds of data and analysis. The research here draws on largely ethnographic-oriented methods, including semi-structured interviews and participant observation, supplemented by interviews with experts and managers, exploration of archival and visual records, and auto-ethnography, including walking, botanical learning, and diary keeping.

In many ways, the methodology itself resembled the field of urban foraging – messy and replete with practices, people, plants and places that defy easy categorisation and clear boundaries. For this reason, I refer to this as an "uneasy" methodology because it was conceptually and practically challenging and, as with many framings of social life, required continuous reflection and adjustment. It also took shape because of a lack of prior research access points and established relationships in the field. This meant an iterative, "snowballed" sampling, requiring time and work to established and build rapport and trust, as well as an understanding of who or "what" was out there to include. While a challenge, this "outsider-in" orientation also enabled me to contend more directly with the processes of learning about plants and foraging, and observe in myself and others the experience of the city through a botanical or foraging lens. The idiosyncrasies of urban foraging as a subject and the nature and life of London as a city demanded something of this "ground-up" approach, especially given the lack of previous studies on the subject there.

Although there are ecological or demographic aspects of the subject that could be quantitatively measured, it also traverses themes that elude positivistic analysis and generalisation - memory, knowledge and community, as well as the aesthetics, cultures and politics of nature. The aim therefore was to generate "thick description" Geertz (1966) or description as thick as possible. While ethnographically oriented, the research does not constitute an "ethnography" per se, at least in the orthodox anthropological sense of the term

(Gobo & Marciniak, 2016). One reasons for this is that for most practitioners, urban foraging functions as a pastime or ancillary activity, rather than a central occupation. As the research is concerned with the specific practices of "urban foraging", it cannot therefore make claims about the whole of a participant's life or that of a wider community. London's urban foragers cannot be understood as a unified, homogenous or coherent "community", so attempting to present a "complete" picture of a social world through foraging alone would be both inexact and undesirable. As with any form of social research, balance was required between reaching adequate breadth and depth of the social lives and relationships involved. A further consideration was how the anthropocentrism of a purely ethnographic methodology might preclude attention to the non-human and more-than-human constituents of urban foraging praxis, involving plants, animals, and the varied materialities of urban landscapes (see Dowling et al. (2017) for discussion of approaching conventional and innovative methodologies in "more-than-human" worlds).

Methods

Participant observation

Participant observation was conducted in various areas of the research contexts and was a valuable way of accessing the qualitative, sensorial and collective aspects of urban foraging. Substantively, this involved joining various organised group foraging walks (some involving a fee), joining harvesting trips and walks around parks and green spaces (often in search of specific food stuffs), joining botanical survey walks in different areas of the city, and spending time in community garden spaces where foraging and wild food were prominent themes or areas of interest. Furthermore, I spent extensive periods in parks and green spaces, (including linear parks and pathways), observing their use and engagement by others and myself (see "autoethnography" section). I accompanied pickers on individual or one-off foraging excursions, and numerous instances of fruit harvesting at individual domestic locations with picking and gleaning networks. In addition, it involved participating in events such as fayres and talks where foraged or wild foodstuffs had a prominent position (this included an event in Hyde Park included as part of an art exhibition focused on foraging in the city, and helping to sell "foraged cocktails" at an "alternative" Christmas fare). It involved several visits to sites and facilities, such as community gardens, juice manufacturers, and a gin distillery. The advantage of such methods is that they not only provided the opportunity to observe practices in situ, as they occur, and capture the varied affects and atmospheres at work, but talking with participants at the "point of action" helped prompt memories and latent knowledge to which interviews or other methods would struggle to access (Jorgensen, 2015). Recording participant observation, while trying not to disturb or

disrupt the naturalism of the setting, was a challenge, especially in an outdoor context. Joining educational walks and botanical recording meant carrying a notepad and pen was normal and thus made the task more manageable. In every instance where I was an active *participant*, I made clear that I was a researcher looking at urban foraging practices which, not only fulfilled ethical requirements but provided a helpful "in" or prompt for conversation when talking with new people. Where detailed notetaking was an interruption to proceedings, I used digital photography as a memory aid for writing up my field notes.

Semi-structured interviews

I made use of semi-structured interviews as a means to add institutional detail, as well as enter into more qualitative depth than possible while occupied with other practical tasks in the field (such as picking). In total the research involved approximately 40 semi-structured interviews (see Appendix I), ranging from unrecorded one-to-one conversations over coffee to recorded and transcribed interviews with organisational representatives. The reason for the disparity (and therefore limited comparability) between interview types was partly based on the context in which participants were engaged with the topic and involved in the research. The settings of interviews included local coffee shops, interviewees' offices, telephone calls and walks through London's green spaces (see below). Interviewees were recruited through unstructured snowball sampling, building on contacts provided by other participants, making use of my existing networks and social media (such as online forums and groups), and through the varied encounters from participation in events and the time spent out in the city's green spaces. When audio recorded, interviews were manually transcribed, while unrecorded interviews were written up from note form as soon as possible after their conclusion and any ambiguous or unresolved content was followed up with participants for clarification. Interview material was analysed manually by reference to key themes connected to the research questions and which emerged during the course of the research.

Walking interviews

A subset of the total number of interviews undertaken can be classed as "walking interviews" (8 in total). Such a method is based around the principle that added qualitative data can be construed by "walking and talking" as well as through "showing" plants (Hitchings & Jones, 2004; Pitt, 2015). Rather than audio-visual recording (as had been initially planned) these interviews were largely recorded through photographs and detailed notetaking. The practical demands of more innovative or technology-centred techniques (such as the use of go-pros or GIS tracking) limited their utility and also, given the potential legal grey areas that some practices occupied, would have proven problematic for maintaining some degree of confidentiality of specific picking spots and itineraries of walks. Body worn cameras have

proven to be useful for recording activities that involve the use of hands and the footage can give a better sense of what the wearer sees. The issue is not only a legal question of what might be picked and where but also proprietary where foragers may have their own "patches", in addition to how people may modify their behaviour in the presence of recording equipment. As these were "walkalongs", with the researcher present, the idea of GIS tracking had limited potential utility. Urban foraging captures a set of idiosyncratic practices and thus chapter 3 introduces the walking research interview itself as a distinct category of urban foraging praxis. This acknowledges the situated role of the researcher, the frequency in which foraging walks are centred on showing, sharing and teaching, and how foraging practices are not essential and fixed but emergent from the landscapes in which they are conducted (Anderson, 2004). One of the techniques utilised for overcoming the challenges of recording walked interviews was to "re-walk" the route either later in the day or in the following days, as a form of transcription and as technique of remembering and filling-in details. Copies of notes or areas of uncertainty could then be verified with the participants in question. The intrinsic incompleteness of walking—and its capacity to capture only a portion of a life—is well articulated when Hayden Lorimer (2011:30) points out, "neither a walker's actions, nor answers, will explain everything about them; about whether they walk to find meaning in life, or if their life-world best fits the motif of the long walk, or the morning stroll".

Autoethnography/diary-keeping

An autoethnographic methodological *outlook* proved invaluable during the course of the fieldwork. Autoethnography attempts to make sense of cultural worlds by reference to the biographical, the affective and the sensorial experience of the researcher themselves (Ellis et al., 2011). Although it can be considered a supplemental method here, it was instrumental for several reasons. Firstly, the absence of a coherent and recognisable "community" of foragers in London rendered the idea of an orthodox ethnography obsolete. Social immersion in a readily defined cultural setting was neither possible nor desirable. Therefore, mapping and understanding my own movement, practices and acquisition of knowledge through a range of different contexts was critical. The main technique for this was keeping a detailed field diary, capturing qualitative observations, ordering analysis and details of affective moments, particularly with set-aside coding for reflection on my own botanical knowledge and understanding. Research training at the Cambridge University Botanic Garden on identification, taxonomy and plant systematics provided me with a baseline from which to track and critically observe my own learning, helping inform insight into that of other participants. Given the meaning connected to the tactile human-plant encounters—as should be clear from the following two chapters—their ephemeral and embodied qualities mean that

even well-designed empirical methods are likely only to reach a certain depth of social experience. The ability to record and reflect on similar, if not identical, experiences on the part of the researcher can help to "triangulate" these insights.

Archival sources

A supplementary method for the research involved the consultation of archives for evidence and detail of historic uses of London's green spaces for the purposes of foraging and informal food provisioning. The key archives consulted included the London Metropolitan Archives and the National Archives at Kew, in addition to local archives in the boroughs of Hackney and Tower Hamlets, as well as the online archives of the Imperial War Museum. As the naturalist Richard Mabey (2006) suggests, despite the seemingly contrasting materiality and institutional space, archival work of this sort demonstrates similarities with foraging practices. As an informal practice, often unremarkable, gathering and foraging tend to slip through the filters of institutional records. It may be overlooked by responsible authorities or its idiosyncrasies elude the rigid purview of local and metropolitan government. It is perhaps unsurprising that records of urban picking were scant. Through a form of institutional "mudlarking", the most effective approach was to highlight points of inflection where existing practices might be exposed or at moments in which practices might be given specific emphasis or impetus. The two broad areas that honed the archival search were the preservation and construction of London's public green spaces (and with it some of the earliest institutional surveillance and recording of such sites) and the disruption on the city and its food supply caused by war (mainly the Second world war with the renowned British organisation and propaganda around food supply, but also the first world war).

Visual sources

Visual images, particularly photography, play a particular role within urban foraging practices. Therefore, visual methods, and attention to the function of visual media and representation also formed a part of the fieldwork, attending to some of the more embodied and affective components of ethnographic work (Pink, 2013). Participant observation and regular and extensive autoethnographic walking generated a large quantity of visual images, aiding both diary-keeping and better representation of the strongly visual component of urban foraging practices. While we can understand foraging in terms of a multi-sensory engagement with urban landscapes, vision is by far and away the primary sensory mechanism for observing and interpreting urban plants. Some of the role of the visual is considered in the final section of chapter 3, which focuses on botanical knowledge and the status of so-called "plant blindness" (Wandersee & Schussler, 2001). The construction and sharing of digital images is an important component of urban foraging, particularly for those keen to share and

encourage their activities to a wider audience. Where foraging is community-centred, visual images provide both aesthetic interest and evidential proof of activities having taken place (as well as reinforcing a sense of the intimate and the local in such practices). Images shared by foragers via social media, as well as images accompanying articles discussing foraging, were analysed for consistent themes, content or form, which fed into the primary analysis of interview and observation data. The scope of visual methods employed was rather more limited than the original research design had intended, mainly for reasons of practicality and logistics.

Ethics and Access[1]

In order to ensure participants' informed consent, an information sheet and consent form was prepared for use where appropriate in interview situations. Initial discussion and information sharing was conducted before or at the beginning of interviews to ensure participants understood the nature of the research and its outputs, and that they were not obliged to answer any or all questions, and that they could withdraw from the research at any point with no negative consequence. When an electronic version of the project information was not appropriate, hard copies were provided. When participating in urban foraging walks or similar with other people, I made it clear at the outset that I was a researcher, looking at foraging practices and, where possible, further explained the form the research took. In the instances when extended conversations or follow up interviews were arranged with attendees, I explained the project in more detail and provided the abovementioned research information.

While the topic would not be considered especially ethically sensitive, there were certain facets that required attention. Firstly, with regards the production and use of visual images, when taking photographs, I made efforts to avoid including identifiable personal features without express permission and altogether avoided taking photographs that included children[2]. Regarding the use of other people's photographs, any reproduction or representation is done with the owner's permission and included here only when the images do not show recognisable individuals[3].

Two areas of ethical practice worth considering here are questions of knowledge and risk, and of legality. As explained, the grounded, qualitative and largely ethnographic approach utilised required a reflexive and open outlook. At times, this involved an internal negotiation

[1] In its preliminary stages, the research was approved by the ethics committee of the Department of Geography at the University of Cambridge. The ethical review attended to various questions concerning social research more generally and those issues specific to the research.
[2] NB While children were present in several fieldwork settings – notably on fruit picking walks and visits – in no situation was I the responsible adult, nor were they otherwise unaccompanied by a guardian. With that in mind, no specific ethical consideration is required in this section.
[3] This point is particularly relevant when the context in which photographs were taken were not clearly a research setting.

as to how and when to deploy what foraging and plant knowledge I had. On occasion, this meant research participants asking me for answers to their questions of plant identification. For example, during one herb walk, there was some discussion as to what a particular fruit was (in this instance a sloe) and whether it was edible. The questioner was concerned that it might be the dark fruit of deadly nightshade (*Atropa belladonna*), which I could confidently assure them it was not[4]. Although a minor event, generating a prosaic response, it is a glimpse at how many inexperienced foragers seek authoritative information and my position as researcher (albeit not expert) provided some of this. This represents a slight shift in the positionality of the researcher in the context of this fieldwork. On another occasion, when offered a nibble of an unidentified seed by a participant, I politely declined and suggested it may not be a wise decision to eat it without knowing what it was.

The second, and probably most ethically sensitive, aspect of the research was the extent to which activities observed were technically legal or not in the spaces in which they were practised, and with it the responsibility of the researcher to make participants aware. At no point were the activities observed high crimes or damaging to ecologically sensitive areas. This involves some subjective judgement about both the letter and spirit of laws. Some of the considerations around trespass and potentially illicit (but non-harmful) behaviour are reminiscent (albeit to a distinctly lesser degree) of the ethical aspects of studying/participating in "urban exploration" (Garrett, 2012). Such ethical questions do not generate easy answers but constitute an integral and valuable part of the research process. Activities can and do occupy grey areas, particularly amid byelaws governing sites, to the point that—as is discussed in later chapters—park managers often turn a blind eye. Where this was the case, the research decision was not to intervene. Where practices may have strayed into illegality, every effort has been made in the thesis and during the research to avoid any possible connection to and incrimination of individuals, through the anonymisation of data and the use of pseudonyms where necessary.

Positionality

As with any attempt at ethnographic practice, and with it a centring of the researcher in the research setting, it is worthwhile reflecting upon my own positionality, its potential impact on how the research developed, and how this might aid the reading of subsequent chapters.

I am male, I pass as white, I am able-bodied, and I am British. I grew up close enough to London to be familiar with the city and to have family located there. Prior to embarking on the research, I had been living in East London for the previous 5 years and thus knew many

[4] I also pointed out to them that while sloes were not poisonous, they would not be pleasant to consume raw.

of the places discussed through the course of the thesis (see figure 1.2, p50 for a map of key locations). In many ways, my own biography and family history is intertwined in the places mentioned and the writing; my father grew up in Hackney in the 1960s and I have some family still living nearby. However, as will become clear through the course of this thesis, there are multiple ways of knowing place, with foraging providing a new lens to familiar sites. Appendix IV offers a vignette describing a day's wandering and picking a couple of years before starting the research.

I am not a forager per se, nor did I grow up with a profound relationship to plants, beyond the horticultural influence of my grandfather, and a broad appreciation of nature. This meant approaching the research field from the outside, not as an already-embedded practitioner (as might be the case with other examples of research on marginal urban life). It also meant building my own knowledge of botany and plant use as I simultaneously explored the meanings and praxis in which urban foraging mobilises this knowledge. At times these epistemic strands blurred, both productively and confusingly. At different points I found myself both forced to stretch my own limited knowledge to keep up with conversations and also withhold knowledge I had already acquired in order not to unbalance the dynamics of a group setting.

One particular aspect of my profile that needed negotiating in the field was that of being a researcher at the University of Cambridge, which brought with it a certain cadre and degree of expectation. In some contexts, this helped to open doors for access through institutional gravitas, while in other cases, the status of professional, academic research clashed (albeit subtly) with the decentred epistemologies associated with foraging. This meant distancing myself from the apparent authority with which my background and academic status could be associated. While my flat, southern, estuary-inflected English may have indicated a broadly middle-class background, it would not have provided much of a geographical cue, other than not being "local". I was keen not to be too easily categorised by participants as "hipster" in my approach to foraging i.e. passing, faddish or uninterested in the wider community and its social history. One participant noted differences in how I appeared upon first impression (smarter dressed, clean-shaven, academic) compared with later out in the field (dressed for the outdoors, unkempt, less formal). This was not something of which I was overtly conscious during the fieldwork—a feature of some of the privilege involved—but did require some retrospective appraisal.

My whiteness and maleness almost certainly facilitated my ability to walk the city in the way that I did, often unnoticed and with a degree of confidence, aided by my familiarity with the areas I was studying. Walking in a city designed largely around the able-bodied was

something I was able to take for granted when exploring or improvising. My routes did not require careful planning, as they would if I were less mobile, and this ease of access should be noted when reading the subsequent chapters. At times my profile was also a marker of difference, for example when walking through predominantly non-white areas or when having to self-consciously adjust my behaviour when potentially seen as a threat or at risk (a lone male in sparsely frequented public spaces). In this context, an institutional association provided some reassurance to others for my motivations, presence and legitimacy for being in certain places. Along with the nature of the methodology and forms of data the research produced, my positionality also prompted a high degree of reflexivity about the types of claims I could make about the experiences of others. This has meant avoiding generalisations, claims to speak to the "whole" of a person's experience, and where possible grounding and making myself (and the context) visible in the discussions.

1. The growth of foraging in London: outlining the study

1.1 Introduction

It is a curious time to be considering "urban foraging" in London. If nothing else, the recent political crises of the UK leaving the European Union have laid bare the interdependencies and vulnerabilities of the contemporary food system (Lang et al, 2018). Images of fruit left unpicked in Britain's fields expose not only a reliance on migrant labour from elsewhere in the bloc (Marshall, 2018) but also modern anxieties of food and the alienation of urban society from the complex food pathways that bring food to cities and dinner tables (Steel, 2008). An increasingly large body of scholarship and practice-based research is plotting ways to address this distance and reconfigure urban food economies (Tornaghi, 2018; Davies, 2019). While foraging has not been suggested as a serious response to potential Brexit-induced food shortages, popular interest in wild food over the last ten to fifteen years has emerged alongside various related and underlying concerns. Food poverty and nutritional deficiencies, food waste, price instability (alongside wider crises of capital) and food safety concerns, as well as the imposing figures of climate change and ecological crisis, have undermined the appearance and reality of a stable and secure system of food provisioning. For many, despite the promises of agricultural modernity, such stability and security has always been illusionary. Where modernity has tended towards a marked spatial ordering of the food system, critical scholarship and external forces have increasingly revealed its otherwise discrete materialities, politics and agencies, including uncountable moments of human-plant encounter. The persistence of the glib refrain of foraging as a "last resort", even in the most modern food economies, indicates an underlying inability to shed the fickle materiality, everyday necessity and enduring cultural significance of food.

A glance at the shelves of most sizeable bookshops—between the nature writing, gardening and cookery sections—you are likely to encounter a host of volumes dedicated to the celebration of wild foods. Similarly, a stroll through one of London's larger parks on a spring morning or perusal of the pull-out sections of national newspapers may well highlight those searching for or extolling the benefits of "foraging" for wild, edible plants. While this remains a marginal concern, wild food and its associated activities, have seen a resurgence in interest and popularity in recent years in the UK. As well as foraged ingredients appearing (and celebrated) on restaurant menus, various celebrity chefs have been vocal in their encouragement for members of the public to roll up their sleeves and venture out foraging for themselves. While they might traditionally be associated with hunter-gatherer societies and fall within the purview of classical anthropology, the persistent discursive and material

presence of foraging practices within industrial societies is a telling facet of modern urbanity. Rather than a recent fad, for Richard Mabey—the unwitting figurehead of the wild food movement—foraging continues a long tradition of "the urban, artisan middle-class profile of the forager" (Mabey, 2006).

Although the desire to "escape to the wild" has been an enduring motif within urban society, the apparent novelty of *urban* foraging, that is to say re-finding that "wild" in cities themselves, within the recent wave of wild food popularity, is a point that this thesis will interrogate. At first glance, it may be easy to dismiss "urban foraging" as a signal of bourgeois taste and sensibility in the throes of a city (London) largely subsumed by neoliberal logics and the demands of creative capital (see, for example, Harvey, 2007; Pratt, 2008; Evans, 2009; Harris, 2011). However, this would ignore the ways in which foraged edibles could and do supplement the diets of those affected by urban food poverty, insecurity and deserts (McLain et al, 2014; Galt et al, 2014; Bunge et al, 2019; Roe et al, 2016) and that, despite its faddishness, foraging maintains some meaning as a subsistence practice[5].
Interlaced with the cultural questions of food and urban foraging are the geographies of hope and fear. On the one hand, a "foraging ethic" (Mabey, 2007:6) offers various redemptive possibilities: to re-acquaint urban dwellers with nature, to generate moral economies of sharing, commoning and reciprocity, and/or a performative, embodied practice that subverts legal and cultural boundaries imposed by a capitalistic view of nature. On the other hand, the reversion to wild food sources is a prominent motif accompanying the scarcity of (post-)apocalyptic imaginaries following socio-political, economic or ecological collapse. "Survivalist" skills such as plant identification, collection and preparation can be signals of readiness for different projected futures (Drury, 2019). The complexity and fragility of modern food supply chains has prompted some to ground foraging within the question of, "what happens when we run out of food?" (Gray, 2019). When we lay these axes—utopian/dystopian and taste/subsistence—across the uneven material-semiotics of urban landscapes, it becomes clear why "urban foraging", in and of itself, fails to deliver singular or easily legible narratives.
The purpose of this chapter is to place the growth of interest in "urban foraging" in London (which it will go on to define in more detail) in a broader context and in so doing outline the rationale and form of this research. It begins this by positioning this most recent trend in

[5] We should distance urban foraging practices from food fads, such as the "Paloelithic diet" and its fetishisation of an imagined "primitive" diet. The two share associations with hunter-gathering practices and the types of foodstuffs involved (nuts, berries, greens) but do not appear to be corollaries of each other. A "paleo diet" does not demand foraging as a provisioning strategy nor does practicing urban foraging mean limiting other types of food.

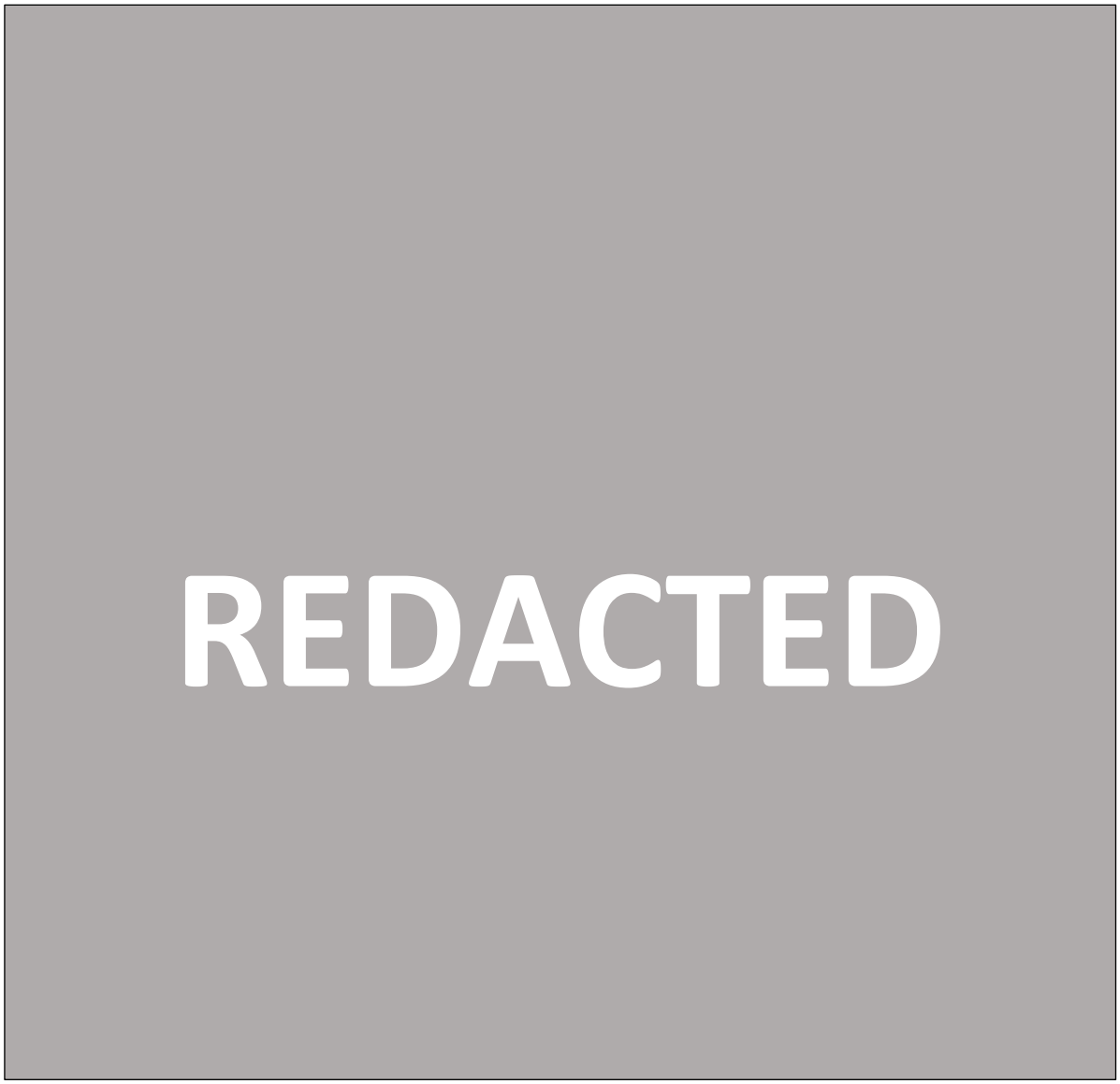

Figure 1.1: Gardening section bookshelves, Reading, UK. Source: Photo by author (2016). A typical selection of foraging-related books found in a high street bookshop, including titles by Alys Fowler, John Rensten and Richard Mabey - testament to the growing popularity of foraging and wild food.

slightly deeper time, including the ebbs and flows of its publicity, popularity and esteem. It briefly places it within the intellectual climate of what Jamie Lorimer (2016) has termed the "anthropo-scene", marked by concern around the state of the global food system, urbanisation and their socio-ecological impacts. Lorimer's term is useful precisely because it points towards the Anthropocene paradigm's multiple faces, including its performative elements and generation of an acute collective self-awareness. While the aim is not to position the Anthropocene (itself a somewhat ambivalent cadre of work) at the centre of this analysis, it is an increasingly important register for articulating the state of humanity's ecological impact and relationship to nature – to which urban foraging might also be seen to respond at the local or bodily scale. Rather than antithetical to industrial society, we might do well to acknowledge the enduring contradictory status and presence of foraging in modern economies. The subsequent section points towards the proliferation of foraging and wild food in contemporary Britain and the popular imagination, including outlining the various arguments justifying its practice and the contours of the debates surrounding it. A specific section is given over to the question of foraging and the law, which helps to inform later discussion. It then attends to some of the academic literature of the last ten years concerned explicitly with urban foraging and gathering and will highlight the key themes and areas of interest that arise from it, as well as possible gaps. Much of this existing research has focused on cities of North America, so London provides a valuable additional site and a unique context for study. Here the chapter will build on this existing work to offer a working definition of "urban foraging" for the purposes of the research. Employed as an "umbrella term" to capture a range of different practices, involving varied people, spaces, plants and purposes, "urban foraging" requires some unpacking. This is undertaken partly by defining the "urban" and the constituent parts of "foraging" practices. Some definitional and boundary work will also be taken up again in chapter 3, dealing with the specific and subtle differences in language and terminology, including the ecologies these involve. The chapter will then detail the four key research questions to which the topic and context give rise, and to which the thesis responds.

1.2 Foraging alongside modernity

> *"…We lived upo' nettles, whoile nettles wur good*
> *An' Waterloo porridge the best o' eawr food…"*
>
> From "The Oldham Weaver", a traditional folk song recounted in Elizabeth Gaskell's *Mary Barton* (1849:51)

The spectre of economic, ecological or social collapse has long haunted modernity and food occupies a visceral role in these imaginaries. "The Oldham Weaver"[6], and its reference to sourcing nettles as a last resort, resurfaces alongside the periodic crises[7] affecting the Lancashire cotton industry during the "long nineteenth century" (Hobsbawn, 1989:11). Despite the skill and relatively good pay of "four-loomed" weavers, they and their families, dependent entirely on their waged, factory labour, were vulnerable to the fluctuations of an unpredictable international commodity market (Timmins, 1993). Whether the rapidly industrialising towns of early nineteenth century Lancashire[8] offered opportunities for good employment or refuge for those dispossessed of land, urbanisation would have meant only limited opportunities for food self-sufficiency or social insurance (beyond charity and the workhouse) in the event of crops, markets or factories failing. Ten miles away in his father's Salford mill, Engels (1843) wrote of the "robbery" practised through the appropriation, exploitation and leasing of land. He declared, "the monopolisation of the land by a few, the exclusion of the rest from that which is the condition of their life – yields nothing in immorality to the subsequent huckstering of the land" (Engels, 1983[1843]:289). The enduring significance of wild nettles as a symbol of destitution and a conceivable source of food points towards early urban subsistence crises and the fraught (or as Marx described it, in *The German Ideology* (1998[1845]:72), "antagonistic") relationships emerging between towns and the systems that supplied them with food.

This ambivalence is also found in the volumes of Henry Mayhew's compendium *London Labour and the London Poor*. Written in the 1840s, one passage concerns a gatherer and seller of groundsel and chickweed explaining to the author how he collects nettles on order and, "takes my nettles to ladies' houses. They considers the nettles good for the blood, and drinks 'em at tea, mostly in the spring and autumn" (Mayhew, 1851:153). The idea that the same wild food plant might be both a sought-after ingredient in the eyes of Victorian ladies *and* a symbol of destitution for Lancashire's weavers suggests that, as explored more fully in the following chapter, the meanings attached to foods, plants and their modes of provisioning are far from fixed. Foraging may not generate consistent or coherent social or cultural narrative associations. The historical context and cultural facets to urban wild food collection in London—and Mayhew specifically—will be returned to in chapter 4.

[6] Also known as *The Poor Cotton Weaver* or *The Four Loom Weaver* in reference to the skilled status of those who could tend to four looms at once. While more senior and better paid, they were wholly dependent on the wage received from mill owners in the cotton weaving heartlands of Lancashire.
[7] Including the Lancashire Cotton Famine of the 1860s, see Shapely (2001).
[8] Oldham's population increased twelvefold across the course of the century.

When we speak of the Anthropocene, it describes as an epochal framing of the earth's history. Even where it incorporates complexity and more-than-human entanglement, it also tracks towards classification and sharp contrast. It is by definition an understanding of the world as having entered a *new phase* of geological time, based on changes to the earth's stratigraphy, and inseparably connected to the impact of human activities (Zalasiewicz et al, 2013). These impacts come in the form of climate change, deforestation, material extraction for construction and energy, agricultural intensification and the manipulation of water systems leaving visible records in the earth's varied geology, as well as on the biological composition of planetary systems. It is pertinent that within Anthropocene thinking, urbanisation is a central facet of change. "[C]ities, and especially megacities…are now the most visible expression of human influence on the planet. The growth of cities is therefore a characteristic feature of the Anthropocene" (Zalasiewicz et al, 2013:836). However, as Jamie Lorimer (2016:131) has pointed out, the term quickly "overflowed the spaces of the geosciences from which it originally emerged" and has been varyingly embraced in different quarters of the social sciences, humanities, fields of policy-making, journalism and the arts. It has become something of a rallying point across disciplines for research and policy concerned with the future of humanity and the planet.

Lorimer's (2016) term, the "anthropo-scene" captures something of the cacophony within the field and draws out five particular manifestations within its milieu. These include the Anthropocene as a scientific question, as an intellectual zeitgeist, as an ideological provocation, as a set of new ontologies, and as a form or motif of science fiction. The specific interest for the question of urban foraging is not so much its direct impacts at a geological or planetary scale but how the Anthropocene's articulation provokes particular forms of response and intervention. Urban foraging, to the extent that it plays with the classical configuration of modern food provisioning systems, might be glimpsed through the performative lens of the Anthropocene and its capacity to imagine or generate alternative possible forms of politics and economy (Gibson-Graham, 2008; 2011). Yet readings of the Anthropocene are also tied closely to the cultural aesthetics and discourses of apocalypse (Ginn, 2015), within which the reversion to wild food foraging is also a recurring material and symbolic motif. For example, such imaginaries are connected to the growth of "prepper" subcultures and widespread interest in survivalist skills, among which wild plant foraging is notable. There is a paradox that, "the same human ability to alter the Earth's natural environment, the fantastic might of our human powers, is also the source of the normative defeatism that sees an ecological catastrophe as inevitable" Chernilo (2017:50). Early in the research, "preppers" were identified as a relevant subset/subculture of urban foragers in the

UK but one which would prove too narrow and inaccessible for its scope. We might also imagine urban foraging as a response to Anthropocene-induced ecological anxiety and its implicit requirement of "learning to accept and live with some 'novel ecologies'" (Robbins and Moore, 2013). This is a point to which chapter 6 will return.

A framing so all-encompassing as that of the Anthropocene carries with it the danger of erasing persistent local differences or the incomplete socio-ecological and political processes of modernity. Although modern food systems can be easily contrasted with the provisioning practices of hunter-gatherer societies, even developed global markets continue to make use of ingredients, foodstuffs and other materials from wild plant sources - often overlooked elements of global diets and consumption patterns (Jenkins et al., 2018). Many food crops such as juniper, liquorice and gum Arabic continue to be derived from wild sources, often because of the practical, technical or economic challenges of their cultivation. The presence of otherwise invisible wild produce—both legally and illegally sourced—is notable in a range of different sectors, including health foods and herbal and traditional medicines, and this continued proliferation should warn us against considering "wild food" as anathema to modern food provisioning. Such commodity chains have substantive impacts in terms of labour practices, poverty, and ecology but occupy a latent, inverted position vis-à-vis the popularised "trend" of foraging. While the focus of this research is on more visible and deliberate forms of foraging, this points towards how foraged ingredients and foraging itself are not necessarily in opposition to capitalist production. Indeed, where value can be extracted—through the exploitation of uncultivated or uncultivatable sources and supressed human labour costs—foraging can be considered profoundly capitalistic

Similarly, we should not overlook the significant numbers of people who continue to derive livelihoods from and subsistence from uncultivated plant sources, supplying households, as well as local and national markets, while nomadic and hunter-gathering societies continue to co-exist and be studied in various regions (Stutz, 2012). While for various reasons accurate data are difficult to come by (FAO, 2019:58), some estimate that over a billion people globally make use of wild foodstuffs (Burlingame, 2000). A recent UN FAO report points to the various ways in which wild foods contribute to (and benefit from) biodiversity and the nutrition and livelihoods of many of the world's population (FAO, 2019). Recent analysis suggests that in regions of developing countries in close proximity to forests (24 countries across 3 continents), while overall proportions to household income may be small, as many as 77% of households are engaged in wild food collection from both forests and non-forest areas (Hickey et al., 2016). In a thorough review of existing studies concerning the collection and

use of wild foods, Bharucha and Pretty (2010:2916) point out how urban, as well as rural, communities rely on wild food sources. They state that:

> Wild food species form a significant portion of the total food basket for households from agricultural, hunter, gatherer and forager systems…the focus on the contribution of agriculture to total food security has resulted in the routine undervaluation of wild food species (Bharucha & Pretty, 2010:2922)

As the abovementioned FAO report lays out, people's use of wild food stuffs is varied in form and purpose (FAO, 2019:60)[9]. Indeed, such patterns are not restricted or defined by global geography or development, demonstrated by the point that some 65 million European citizens collect wild food in some form, and at least 100 million EU citizens consume wild food (Schulp et al., 2014).

1.3 Urban foraging in the popular imagination

In the middle decades of the twentieth century, the scientific and technological advances of the green revolution offered the tantalising possibility for humanity to shed its supposed ecological limits with regards to food. Even as it began to pay dividends in the post-war period, providing calories and nutrition on an unprecedented scale, the consequent alienation of urbanised society from the places, ecologies and knowledge of food and agriculture provided grounds for discontent for some. Many, alarmed by the possibility of mutual self-destruction and armed with a pastiche of ecological spiritualism and political radicalism, went "back to the land" (Kennedy, 2013). The political milieu that gave rise to late twentieth century environmentalism was intertwined with an emerging alternative food politics that chimed with the novelty, naturalism and escapism embodied by popular foraging volumes such as Richard Mabey's *Food for Free* (1972) and Euell Gibbons' *Stalking the Wild Asparagus* (1962)[10]. These two writers' contrasting biographies exemplify the intrinsic complexity in the recent embrace of "wild" food. For Mabey, an affluent middle-class upbringing fostered a love of nature, as well as a counter-cultural outlook that found the political and the playful in foraging, rather than means of subsistence. As he explains, foraging is "basically a load of largely middle-class foodies and ruralists going out and getting a romantic kick out of this very sensual engagement with nature" (quoted by Corner, 2012). In the case of Gibbons, he learned to forage and cook in the dust bowl of New Mexico

[9] These include 8 categories, with possible overlap or the applicability of multiple categories in a given area: (1) Regular use of wild foods (2) Regular use by specific populations (3) Use in times of scarcity (4) Use of wild foods as supplementary food sources (5) Use of selected species (6) Commercial use (7) Recreational use (8) Cultural use.

[10] Their relative popularity arguably reflects the uneven and distinctive cultures and attitudes towards food prevalent in the UK and North America at different times.

as a means of meagre subsistence for his family, and only found success as a writer later in life. The broad audience for these authors—and many after them—during a period of history in which cheap, nutritious food has never been so available, demonstrates that foraging, and food more broadly, speaks to more than just a question of survival and the bare life of biopolitics. However, as Kennedy (2013:201) suggests, unpicking these meanings may reveal, "a much more contentious reality of relationships to land, property, and resources than is often hinted at by the rhetoric of 'getting in touch with wildness' promoted by foraging enthusiasts".

Even a brief survey of the multifarious published blogs and articles, social media groups, academic research and preliminary discussions with foraging enthusiasts reveals many reasons for which "wild" food and foraging have been increasingly championed. These include but are not limited to: the rediscovery of historic and traditional foods (and medicine); the search for new or alternative flavours; for the potentially improved nutritional content of wild plants (see Stark et al, 2019); to foster the genetic value of wild relatives of domesticated species and cultivars; to generate interest in botany and wider ecology; to foster stewardship values towards nature; to promote psychological and spiritual wellbeing and reengage with nature; to foster resilience and self-reliance; to encourage more sustainable methods of food provision; as political resistance or reimagining of food politics and production; as a means to reclaim nature and land; to support local food security; and for access to freely available food. There is little data that reveals specific details about the level of increased interest, the volumes or species involved or the extent to which "wild food" has created or penetrated food markets in the UK, (or indeed the impact it has had on the sites on which foodstuffs are collected). There are several companies in the UK dedicated to sourcing and supplying wild ingredients to trade and retail, and even more companies making use of the "wildness" of ingredients as a marketing strategy (such as gin manufacturers), as well as restaurants with foraged ingredients on the menu.

Celebrity chefs such as Rene Redzepi, Hugh Fearnley-Whittingstall, Antonio Carluccio and Mark Hix have all, through their cooking television programmes and printed books, helped push the idea of foraging and wild food, if not fully into the mainstream, then out of the margins of popular culture. The success of Fearnley-Whittingstall's book *A Cook on the Wild Side* (1997) and accompanying television programmes, along with a range of volumes in the *River Cottage Handbook* series, perhaps best exemplifies the latent middle-class urge to get back to nature through the food they cook and eat. In a contribution to the *Guardian* newspaper, Mabey (2006) sees foraging's most recent iteration as the latest in a long lineage

of cultural and literary interest in the politics and flavours of the "wild". He cites numerous historical influences of varying renown, including the diarist John Evelyn, Henry David Thoreau, the Norfolk botanist Lilly Wigg, and journalist Dorothy Hartley. Interestingly, he notes how his hunt for wild food was intellectual as well as nutritional, conducted almost as much in the pages of old books and archives as it was in fields and hedgerows. Mabey's foraging outlook may be irreverent, self-aware and gestural but it no doubt accompanies a deeper disquiet at the state of the food system and the impact of human activities at the local and global level. The extent to which foraging at different scales might counter or contribute to such impacts is somewhat unclear, although from Mabey's perspective the implication is that foraging is rather more a prompt for conversations about food and nature than represents a solution. The idea that foraging might foster closer engagement interaction, care and stewardship at the local level—as has been suggested by some proponents—is one that requires further analysis.

While foraging in the UK has most often been framed as a rural pursuit or sometimes justified in terms of *escaping* the city—itself reflecting a degree of social privilege—a notable addition to this discourse has occurred more recently with an increased focus on the possibilities of picking and harvesting in urban areas. A proliferation of articles highlighting the idea of urban foraging has sprung up in the UK media, often with a focus on foraging in specific towns and cities[11]. A recent food article in the Big Issue[12] connected it directly to the theme of Britain leaving the EU, with a headline stating: "Urban foraging: If Brexit bites, dig for victory" (Westwater, 2019). The premise and language hint at a latent food insecurity and revealingly invokes the "Dig for Victory" campaign of the Second World War, underlining how existential concerns have a habit of turning people towards the possibilities of foraging and wild food - often framed as "famine foods" (Collingham, 2012). The tenor of these articles tends to exhibit qualified positivity about going picking in cities, often noting more general good practice, such as following the law, picking sustainability and avoiding potentially polluted areas. The implication of these pieces tends to emphasise the unexpectedness of encountering edible plants in cities, and the convenience that proximity might offer, but leave alone questions of access, land ownership and how spaces are managed. A sense of the "urban" among the urban foragers involved tends to be fairly non-descript, reliant mainly on an intuitive assumption that cities and towns are distinct from the

[11] Examples include Bath (Hyslop, 2014), Birmingham (Probert, 2011; Irwin, 201), Bristol (Brouilette, 2016), Cambridge (Martin, 2017), Dublin (Hamilton, 2018), Ipswich (Phillips, 2014), Leeds (Reddy, 2016), as well as London (Liddell, 2014; Shute, 2016; Sinibaldi, 2017; Iqbal, 2018).
[12] A social investment publication sold by those affected by homelessness in the UK.

countryside or wilder areas, and that nature occupies at best an ambiguous place there. As chapters 3 and 4 in particular make clear, different forms and modes of walking and picking centre on different framings of the purpose and proper place of wild urban plants and their potentiality as foodstuffs. Articles highlighting the possibilities of urban foraging often point readers towards organised foraging walks, community groups, social networks or specific spaces that are optimal places to forage. A Timeout article (Sims, 2018) offered readers a list of the best places to pick blackberries in London, despite it being in contravention of the byelaws on the majority of the sites included.

It may well be the case that the rhetoric and image of urban foraging, and wild food foraging more broadly, outweighs its material practice and impacts in the UK. This should not be read as a dismissal of the material and potential impacts activities *can* have on ecologies and landscapes, especially in sensitive areas. Various stories have surfaced in recent years centring on different harms incurred through foraging practices. Some of these stories, reappearing in different years, are remarkably similar, while some of the same newspapers also include articles in other sections promoting the practice. Two of the more prominent recurring themes concern ecological damage and poisoning. Of the former, concerns are frequently raised about picking in specific sites, including London's Royal Parks (BBC News, 2018), the New Forest National Park (Davies, 2015), and Epping Forest (McKie, 2015). In all instances, the collection of fungi is noted as a particular concern[13] (discussed in later chapters) for reasons of the rarity of species themselves, indiscriminate picking practices[14], and the importance of fungi as biological indicators and their interactions with other (potentially threatened) organisms. All three sites are governed by slightly different rules and governance mechanisms[15]. News articles concerned with poisonings are often connected to the consumption of toxic mushrooms, and in some cases anomalous weather conditions creating an abundance of available fungi (e.g. Mortimer, 2016) or bringing people

[13] In the case of the Royal Parks, the collection sweet chestnuts is also noted in the BBC article (2018).
[14] That involve the collection of all fungi present and are then sorted en masse, meaning they do not discriminate between rare or common species, and poisonous species are collected alongside edible ones, with a subsequent risk of cross-contamination.
[15] Under the scheduled byelaws of the New Forest, foraging and the collection of plants or fungi is not prohibited per se but commercial picking is governed by the Theft Act (1968) and other extant, nationally applicable legislation (e.g. Wildlife and Countryside Act). The Court of Verderers of the New Forest is a statutory body with the power to draw up byelaws governing the forest. As a functioning common, the New Forest byelaws are quite distinct from those governing urban spaces. The Royal Parks does not have statutory power to produce byelaws but is rather governed via regulatory powers conferred via the national government. These regulations explicitly prohibit "interference" with any plant or fungus. It has various organisational policies relating to conduct and use of the parks. Epping Forest is managed by the City of London Corporation, which also has statutory powers to construct byelaws relating to the use of the forest. Some common rights are still exercised on the forest but the removal of any plant or fungus is prohibited under the byelaws.

into contact with species that would otherwise go unnoticed (e.g. Hemlock Water Dropwort (BBC News, 2018)).

1.4 The legal context of foraging in the UK

As section 1.6 below, and subsequent chapters, make clear, "foraging" itself covers a range of practices, people, plants and places, the legal meaning of which can shift depending on the spaces in which they are conducted. In a review of the legal status of foraging in the UK, Lee and Garikipati (2011:416) state that foraging, "sits uncomfortably in the modern regime of legal rights. This is a function both of the complicated history of English property rights as well as the public policy (or often lack thereof) towards peripheral communal rights". As they point out, foraging implicates both rights of *access* and *withdrawal* which, although in some sense distinct, must be considered in relation to each other for understanding foraging law. Following the Criminal Law Revision Committee (1970), the Theft Act (1968) explicitly excludes non-commercial foraging from the definition of theft:

> a person should not be guilty of theft by picking mushrooms or other fungi, or flowers, fruit or foliage, growing wild unless he does so for reward or for sale or other commercial purpose

A similar distinction is made under the subsequent Criminal Damage Act (1971), which states that "mushrooms growing wild and the flowers, fruit or foliage of any plant growing wild should not be capable of being the subject of an offence of damage to property". This echoes previous jurisprudence from the nineteenth century that found that the taking of mushrooms or plants growing *on* property did not constitute damage *to* that property[16]. The case in question concluded that "the mushrooms had grown spontaneously and were thus not cultivated produce, they did not constitute property as defined by the Malicious Injury to Property Act 1861" (Lee & Garikipati, 2011:425). As later chapters note, the relevance of such thinking also depends on the state of mycological and ecological knowledge and an understanding of the impacts of certain practices. The absence of critical ecological knowledge or data has an impact on how different spaces are understood and managed. The significance of wild plants *as* property (or not) is a distinction explored further in chapter 7.

The main conservation legislation governing foraging for wild plants and fungi is the oft-cited Wildlife and Countryside Act (1981). This is primary legislation with slightly different schedules for England and Wales, and Scotland. Under the act, it is an offence to uproot a plant without permission from the landowner, and it is an offence to pick, uproot or damage

[16] Gardner v Mansbridge [1887] 19 QBD 217 (see Lee & Garikipati, 2011)

(or attempt to sell) any plant listed under section 8 of the act[17]. It is important to note that this wording is not permissive of the right to forage, but rather refrains from outlawing it, with specific provisos. It therefore does not override other regulation or legislative instruments in this regard. While the Countryside and Rights of Way Act (2000) opens up access for walking and easement across registered common land and mapped open country, schedule 2(1)(l) of the act restricts access for they who "intentionally removes, damages or destroys any plant, shrub, tree or root or any part of a plant, shrub, tree or root". The effect of this provision is to render anyone undertaking such activities a trespasser. According to Lee and Garikipati (2011), such restrictions do not apply in various contexts. Firstly, under CROWA, the general schedule of rules only applies to lands made newly accessible through the act, while existing voluntary agreements, local or private acts, or private rights likely continue to apply. As they describe it, the regulation and enforcement of rules regarding the public right to forage was often done on an ad hoc and local basis. Since the nineteenth century and following social and legal reconfigurations of property and access to land, there has been limited jurisprudence to inform contemporary understanding.

> [E]ven where statutes were crafted to control access and the taking of plants, the interpretation and application of the law seemed to indicate that foraging was either of little interest in a property-rights sense or was, as we maintain, something that was inherently public in nature (Lee & Garikipati, 2011:425)

The restrictions within the CROWA, reflecting concerns of both conservationists and landowners largely reflect the provision under the National Park and Access to the Countryside Act (1949). This restricted access for foraging or a person who "wilfully injures, removes or destroys any plant, shrub, tree or root or any part thereof" (NPAC, 2(1)(h)) on the land to which the act applies. Under the provisions of these acts, foraging, where restricted, is importantly not a criminal matter but a civil one, generating an act of trespass, not theft or criminal damage. Judgement in the case of Brigitte Tee-Hillman, who was prosecuted for theft by the Foresty Commission for commercial picking of mushrooms in the New Forest National Park in 2002, suggested such foraging was of too little significance for a criminal case to be brought. The judge stated, "It is wholly inappropriate for public money to be spent on criminal proceedings such as this" (Dorset Echo, 2006). The Forestry Commission was ordered to pay all (extensive) legal costs and an arrangement was reached to provide Tee-Hillman with a license to pick on the forest beyond the 1.5 kg limit of "personal use". Such a pragmatic outcome does not necessarily confer legality on the practices themselves and authorities have clamped down on mushroom picking in the last 5 or 6 years.

[17] A select list of rare or threatened native species

For the most part, the legislation governing foraging for plants and fungi in the UK does not directly differentiate between "urban" and "non-urban" foraging. However, land excepted under CROWA includes parks, gardens, land within 20 metres of a dwelling, land used for infrastructure (including railways, electricity networks) and land covered by buildings, meaning that for the most part its restrictions and provisions are inapplicable to much of a city such as London. However, the vast majority of parks, commons, public gardens or otherwise open spaces in which foraging is likely to take place in London are covered by different schedules of byelaws or have specific legal or scientific designation, such as Sites of Special Scientific Interest (SSSI). With regards SSSI's, foraging is not necessarily banned per se—depending on the local management plans and rules—but permission is likely required to conduct it legally. Wild food collection is just one of the many pressures on SSSI's situated in or near dense urban areas in London, a number of which are made mention of later in the thesis, including Walthamstow Marshes and Wetlands, Hampstead Heath, Epping Forest and Richmond Park (see figure 1.2, p50 for a map of key sites). Different local authorities and managing agencies employ different schedules of byelaws, many of which differ slightly in their provision covering foraging. Different rules are also attached to individual parks and open spaces, often reflecting the history of the site, its location and its use. Many, but not all, London Boroughs and managing authorities have provisions similar to those of the legislation above which prohibits injuring, damaging or removing whole, or parts of plants and fungi. These are often byelaws adopted (and not updated) under acts concerning previous forms of metropolitan government, such as the Greater London Council (GLC) and London County Council (LCC). Importantly, central government "model byelaws", which are generally adopted by local councils and statutory agencies for the regulation of parks and green space, have a specific clause reflecting similar provision[18]. The Royals Parks – including some of London's most famous and utilised green spaces—are not covered by byelaws but instead legislation governing their regulation. Under the Royals Parks and Other Open Spaces regulations (1997), foraging is not explicitly prohibited but written permission is required from the Secretary of State in order to "interfere with any plant or fungus". According to a Royal Parks representative I spoke with, the policy of the Royal Parks is to prohibit foraging of any kind. Few green space managers or local authorities actively permit foraging in their jurisdictions (as opposed to not prohibiting it), although many hold walks and courses on relevant topics, such as plant identification and bush-craft. Different sections of local authorities may have slightly different understandings and awareness of rules affecting sites

[18] As the model byelaws read, 5.1.b: "No person shall without reasonable excuse remove from or displace within the ground any stone, soil or turf or the whole or any part of any plant, shrub or tree".

While foraging is largely prohibited by letter of the law in many accessible spaces across London, as later chapters will discuss further, monitoring and enforcement of regulations and policies is uneven and discretionary, leaving the permissibility of the practices in a somewhat grey area.

By way of a recent example outside London, proposed changes by Bristol City Council (BCC) to byelaws affecting public green space in the city in early 2016 garnered local and national headlines (Emanuel, 2016; BBC News, 2016; Daily Telegraph, 2016) for their apparent prohibition of picking and foraging by members of the public. The byelaws, which were confirmed in 2017, state that "no person shall without reasonable excuse remove from or displace within the ground any stone, soil or turf or the whole or any part of any plant, shrub or tree" (PART 2 4.1.b, Bristol City Council Byelaws for Pleasure Grounds, Public Walks and Open Spaces, 2018). The proposed wording generated significant opposition in the public consultation on the byelaws (Bristol City Council, 2016a) and prompted the council to make clear that foraging for personal use was not the target of the byelaws (BCC, 2016b). In fact, the provision for the protection of plants and structures was lifted directly from central government model byelaws for parks and open spaces (see Ministry of Housing, Communities & Local Government, 2018) and is present in rules governing open spaces across various parts of the country. Given their widespread use, the public outcry about the impact of the byelaws on urban foraging in Bristol was probably unforeseen but did prompt the city council to actively *permit* foraging in response to these concerns. Its website now states that the public "can pick wild fruit, such as blackberries, or parts of edible plants in any park or green space, as long as: they're for you or your family; you don't sell them (raw or cooked)" (BCC, 2019). This is in contrast to many public authorities, in London for instance, in whose parks and green spaces the same or similar byelaws implicitly prohibit foraging but the enforcement of which is absent, discretionary or the practices are overlooked. These leave such activities in a perpetual legal grey area. The thesis will return to the question of byelaws and regulation in chapter 5. There have been numerous prosecutions and summons issued in recent years in London, including the case of Sonata Sliuzaite who made headlines when she was prosecuted and fined by the City of London Corporation for collecting mushrooms in Epping Forest in 2016 (East London & West Essex Guardian, 2016).

The growth in interest in foraging, wild-sourced ingredients, publications and educational courses and walks has prompted numerous organisations to develop or amend rules or codes of conduct for the safe and responsible use of wild plants. Such organisations include the National Trust, BSBI, the Woodland Trust, as well as the recently established Association of

Foragers. The latter, created in 2015, aims to offer a voice for responsible and sustainable foraging practices, to work with statutory bodies to include foraging within future land use policies, and to find consensus on a common code of conduct for those foraging (The Association of Foragers, 2019). More than three quarters of the 120+ listed members are based in the UK or Ireland and although most conduct their work in rural areas, a number forage and teach within cities, including London. Several were consulted as part of this research (see Appendix I).

1.5 Urban foraging as an interdisciplinary concern

As well as an increase in public interest, a body of academic scholarship has arisen with a specific focus on *urban* foraging and gathering practices. Given the nature of the topic, and its varied themes, concerns, politics, materialities, and ecologies, it is unsurprisingly interdisciplinary. It bears a particularly North American leaning, partly due to its emergence from the institutional and disciplinary context of urban forestry, within the research and policy sphere of the US Forest Service. Whereas urban forestry began as a discipline primarily concerned with the effective technical management of trees and vegetation in and around urban areas, the concerns of "the urban forest" have expanded to cover its broad range of social-ecological, cultural and economic provisions and services. As McLain et al. (2012) point out in an annotated literature review, urban gathering has enrolled scholars across disciplines, including cultural ecology, political ecology, environmental psychology, environmental health, urban ecology, urban forestry and urban planning.

Interestingly, the urban ecologist Oliver Gilbert (1992) designates the term "urban forest" one largely applicable to North American contexts. He distinguishes it from a European concern for "urban commons" that, in his estimation, describes the composite assemblages of escapees, native species and neophytes that occupy the ruderal soils of open, formerly industrial land in towns and cities. Whether such a geographical distinction holds is unclear but there are several historical, cultural and geographical reasons why North American cities in particular have developed a keen sense of an urban forest, and by extension an interest in urban food gathering. Firstly, the patterns of urbanisation in North America mean many zones of urban expansion in recent decades have been contiguous with forested areas or areas of wildland vegetation (Alig, 2010). This has practical implications for the management of urban forests, their ease of access, and the importance of their use by the public, which in turn generates a need and space for institutional expertise. Perhaps more significantly is the particular importance of the politics of nature conservation and wilderness in the history of colonial violence and expansion (see for example, Cronon, 1995; Greer, 2012; Jacoby, 2001).

In a North American urban context, such issues are not merely vestigial but ongoing concerns where metropolitan land management is confronted by conflicts over land tenure, iniquitous access to urban resources, threats to indigenous rights, memory and knowledge, and ongoing racialised struggles for urban environmental justice (see Sze & London, 2008; Anguelovski, 2013; Peters & Anderson, 2013). The urban gathering research agenda is as attentive to its place within the nexus of colonial history, migration, indigeneity and race, as it is to specific aspects of *urbanity*. The "urban forest" affords those displaced through land appropriation, migration or urban planning regimes, the opportunity to return to ancestral lands, to repurpose space for traditional use and collection practices, or to reformulate traditional practice through the material and space available (Jahnige, 2002).

These concerns mean that while this research expands on prior phases of urban political ecology (Keil, 2003; Heynen, Kaika & Swyngedouw, 2005; Heynen, 2014) and work on urban forests (e.g. Heynen et al, 2006) and urban food (e.g. Heynen, 2005), it shares as much with scholarship in "classical" political ecology. To their credit, the studies in this field have often been empirically based, building on relationships and experience fostered over many years, yielding a great deal of qualitative data over time, particularly in key cities such as Seattle, Philadelphia and Baltimore. Such empirical work is not centred on theorising the urban per se and differentiates it somewhat from the directions in which urban political ecology has developed (Zimmer, 2010). The "urban forest"—as both material site and quasi-metaphorical framing—limits the room for theoretical innovation and has restricted the reach of this urban gathering subfield. Where urban political ecology has sought to explore metaphors and the materialities of metabolism and flow, the "urban forest" offers a more fixed and tangible object of study, which helps generate insight into material use and services but struggles with the more spatially abstract aspects of urbanisation. However, the work of Kowarik (2005) on "wild urban woodlands" provides an analytical bridge between not only urban and classical political ecology but also the subfield of urban ecology itself. The conceptual framework he proposes does not isolate the "urban forest canopy" as an entity per se but positions the emergence of distinctive typologies of urban woodlands in the context of the ecological processes (both natural and cultural) shaping and impacting sites. He suggests four categories that distinguish woodland types encountered in cities – remnants of pristine woodland; woodlands marked by traditional cultural practices or silviculture; woodlands resulting from urban greening; the newer classification of urban-industrial woodland. The habitat continuity, species availability and abundance, biodiversity values, and human cultural or economic utility will differ markedly across these forms. Among these, foraging practices align most closely with woodlands characterised as pristine or natural, or those

shaped by agriculture or forestry (in the cases of where uncultivated food supplemented agricultural diets in a rural context). A question to consider is therefore not so much what the "urban forest" as a whole offers a general idea of foraging but what types of urban ecological assemblages and land use histories afford foraging opportunities and where are these opportunities realised.

As some have argued, urban foraging itself may impart different forms of ecological categorisation and land use types. Charnley et al. (2018) pay particular attention to the qualities of urban landscapes by focusing down on some of the contingent conditions through which certain species come to be picked or not. They distinguish between "conditions" of access for urban foragers and "mechanisms" of access. The former refers to the "variables that influence one's ability to benefit from natural resources"[19], while the latter are the specific mechanisms used to "gain, maintain and control access to resources" (Charnley et al., 2018:735). They explore three typologies of urban green space—parks, yards and public rights of way—and discuss the varied rules and mechanisms, as well as moral calculations that shape whether a forager collects plants in certain places and under what conditions. Such thinking is instructive for a few reasons. Firstly, it attends to the specificities of the urban landscape (in general) and urban landscapes (in particular) and adjusts for their uneven social and spatial configuration. As chapter 3 discusses, it is a problematic habit to *smooth over* urban topologies and imagine that because cities are intrinsically human-transformed environments, they are controlled, ordered and rational. The mobilities inherent in foraging help uncover this unevenness, unlike a pure focus on the more spatially fixed geographies of urban agriculture or gardening. Secondly, it examines the moments of tactile human-plant encounter that help to generate the peculiar meanings associated with urban foraging. It reveals some of the psychological and cognitive processing of urban space that categorises certain plants edible and others not. Importantly, this does not presume "cultural edibility" i.e. the cultural framing of what can or should be eaten, in the context of urban foraging (Poe et al., 2014; Rohel, 2017) as uniform or homogenous within groups (or necessarily different between groups).

The gathering and use of wild food sources has, since at least the 1980s, occupied the attention of policymakers and conservationists (Belcher et al, 2005), and by extension political ecology concerned with how "power-laden" contours of ecologies are intractable from the patterns of wider political economy (Robbins, 2012:13). As Robbins explains,

[19] Typologies of conditions of access include ecological, physical, technical, legal/political, social, economic and cognitive.

political ecology has itself undergone reappraisal in the light of postcolonial scholarship and the recognition of the complex ways in which livelihoods, identities and communities are enacted, performed and mobilised (versus classical renderings of the peasant, tradition or indigeneity).

> "The value of livelihood identity research, therefore, is that it transcends this work, to show how ecologies are viewed, produced and defended by local people. That these people don't always do things the way outsiders would like—using chemicals or cutting trees—is not a problem, indeed it is exactly the point" (Robbins, 2012:225).

Robbins' own work on "lawn people" is an apt demonstration, therefore, of how political ecology—sometimes uncritical of the human-nature duality by its enduring focus only on those "close" to nature—can be mobilised in urban landscapes. Meanwhile, McLain et al (2014) point towards some of the ways in which urban foraging constitutes a subversive relationship between people, plants, spaces and often conflicting or contradictory forms of urban planning and regulatory governance. Such structures often employ proscriptive or ambiguous rules around if, what and how much foragers may take, problematic vegetation management (such as planting regimes and chemical use), and ambivalent or negative views around foraging as an "appropriate" use of urban green space. They observe that urban political ecology to date has at times tended to reinforce urban-rural divides by failing to recognise that, "classic resource conflicts well documented in the 'rural geography' literature are also present in the city" (McLain et al, 2014:237). Not only this, the multiple amenities and understandings of space that urban living engenders means that urban nature needs to be read as more than just the medium or terrain through which structural power relations are played out.

Considering the relational-materialist and more-than-human geographies of urban foraging practices might serve to diffract a singular focus on centrality of capital in dictating the terms of urban life. Utilising the experience of one of the core sites of study, Seattle, urban foraging practices help Poe at al. (2014) piece together what they term "the relational ecologies of belonging". This is a deliberate attempt to "push political ecology toward an expanded analysis of place and belonging that accounts for the relational and extra-institutional qualities of human –nature interactions" and to "highlight the ways that other more-than-human actors assert agency in multi-species assemblages" (Poe et al, 2014:914). Urban foraging in this case offers varied means through which people relate to their own cultural heritage and praxis, to deepen the connection with place and landscape, and to foment connections with more-than-humans. Importantly, this relationality is not only a question of forging positive connection but can also involve establishing and reinforcing relational

difference, which "bumped up against knowledge/ power networks of indigenous, settler, and other immigrant geographies" (Poe at al, 2014:914). They note how the value of urban natures and particular species are "highly contingent, contradictory, and mutable" and yet "urban foraging might best be understood as bioculturally diverse and rooted cosmopolitan nature practice". The work of Anna Tsing (2015) also tells us something about the relational ecologies enacted through foraging. She has sought the stories mushrooms demonstrate about living and *un-living* in the wreckage of capitalism or the Anthropocene. The forests that fix her attention are to be found at the edges of and beyond the deliberately human-built world; they are rendered "urban" through the varied scales and commercial networks in which they and their inhabitants are entangled. These forests are not urban in the sense that they are part of or exist inside cities but that they are landscapes damaged by urban forces played out elsewhere. One of her interests is in the "resurgent" qualities of the forest in the wake of human destruction (Tsing, 2015:179). Her concern is partly how forests and the associations they engender for humans and non-humans (and their revitalisation) can "reconstitute peasant disturbance to teach modern citizens to live within an active nature…a forest within which human household-scale livelihoods thrive" (Tsing, 2015:180). Despite this, and the hope contained within it, cities and their dense compositions of urban design are clearly not the attention of Tsing's writing. The idea of nature reclaiming urban landscapes from the excess and hubris of human actions are common visual motifs in science fiction writing. More frequently than not, plants are mood-setting devices, rather than central characters, although John Wyndham's (1984 [1951]) *The Day of the Triffids* is a notable exception. While foraging and picking resemble a means to make sense of and live in "damaged landscapes", it is not clear whether the status of the "urban forest" might position it as a reclamation of the city by nature, an integral and managed part of the city, a proximate but ultimately distinct phenomenon, or whether together they generate emergent realities. The idea of a resurgent, urban, forest might serve to underestimate the novelty of the assemblages and relationships in question. Indeed, there is no requisite to contemplate the urban as the city, to succumb to "methodological city-ism" (Angelo &Wachsmuth, 2015), but the urban landscapes of cities do project different orders of experience that are worthy of study in their own right. In this sense, the existing body of urban gathering literature is "a step toward filling the gap in knowledge about the socioecological roles of NTFPs in urban ecosystems in the United States" (McLain et al, 2012:iii).

In a study considering issues of rights and access to the urban forest, Hurley et al. (2015) contrast the examples of "wild" food gathering in the green spaces of urban Philadelphia with the collection of sweetgrass as material for basket weaving in Charleston, South Carolina.

The former is undertaken by a range of people which, deliberately or not, challenges "a predominant way of seeing urban nature and the place of particular species in it, specifically different notions of which species are useful and which may have a legitimate presence in the urban forest" (Hurley et al., 2015:202). Like many cities, urban foraging in public spaces is generally institutionally forbidden or frowned upon. Unlike the foragers of Philadelphia, basket-weaving in Charleston has a history going back many generations among the area's African American communities. The fast pace of urbanisation, zoning practices and management regimes have affected the physical and legal capacity for foragers to collect adequate quantities of grasses to support their activities and livelihoods. However, through adaptive strategies, alliances, and community organisation, some collectors have negotiated and formalised access to spaces for harvest contributing both to the stewardship of species and, benefiting residents and developers who "recognized the significance of these showy species for reinforcing a particular sense of place associated with the Lowcountry" (Hurley et al, 2015:204).

What can be observed through existing studies is how the emergence, recognition and legitimation (or not) of urban foraging practices is very much place-dependent and reflects the particular contexts in which urban nature is encountered. Research questions for urban foraging studies in Berlin focus on species level biodiversity interactions involved in foraging in urban green space (Palliwoda et al, 2017), and the engagement with broader green infrastructure (Landor-Yamagata, 2018). Academic interest in foraging in Berlin likely stems from the long and particular history of urban ecological and botanical science in the city and the alternative politics practised through the green space of the "island city" (Lachmund, 2013). The German urban food-sharing platform *Mundraub*, which maps fruit trees, among other resources (see Labaeye, 2017), has been employed to help assess fruit tree coverage between former East and West Berlin (Larondelle & Stronbach, 2016). Shackleton et al (2017) note that while the concerted urban foraging literature to date has focused on cities in North America, studies are increasingly extending to other regions of the world, including sub-Saharan Africa, India and South America. This think piece offers seven interlinking "themes" that can be drawn from the range of existing geographies and contexts of urban foraging studies. These include the observation that foraging takes places across a range of urban spaces, involves a variety of actors, engaged for multiple and varied reasons, and involve a range of dependencies on such activities. Foraging is met with general disapproval by city authorities and is significantly impacted by the spatial upheaval and reorganisation of urban spaces that necessitate forms of mobility and adaptation. This offers fruitful ground on which to consider the growth of foraging in the context of London – a landscape with a great

degree of ecological and demographic diversity, the resurgent status of nature and biodiversity, and a long history of informal economies and use.

1.6 "Urban foraging" and associated terms

The literature to date has tended to converge on a definition of urban foraging based on the materials foraged and the spaces in which it is undertaken, somewhat reflecting the location of the research in or close to urban forestry. For the purposes of this thesis, such a definitional focus is largely sufficient. Building on the definition of Jahnige (2002), McLain et al. (2014:223) focus on foraging for:

> …any plant, plant material, or fungus collected form urban street trees, yards, vacant lots, and landscaped areas, as well as formal parks both large and small…[including] wild plants and fungi (i.e. species not altered through horticultural techniques or genetic engineering), "feral" plants (cultivars that spread or persist without human intervention), and the fruits or other desired parts of domesticates where these are incidental to the primary reason for which the specimen was planted.

This framing of foraging is echoed by Hurley et al (2015:188) who describe, "the harvesting, gathering, or collection of these products, which can be derived from native and nonnative, invasive and noninvasive species". They also include several motivations within their definition, stating how foraged materials, "contribute significantly to the lives of many urban residents by supporting both economic and noneconomic needs, such as subsistence, social reproduction and identity formation, and their quality of life". Shackleton et al. (2017:2) take a slightly broader approach to cover "the practice of harvesting or gathering raw biological resources (fungi, plants, parts of plants, invertebrate and vertebrate animals, and fish) within urban and peri-urban settings primarily for direct consumption, decoration, crafts, barter, or small-scale sale". The focus for the purposes of this research is restricted to materials of a vegetal or fungal nature, with an acknowledgement that this distinction is somewhat arbitrary, especially when one considers the similarities between the collection of bivalves and plants. Hunting, trapping or fishing—while clearly forms of foraging behaviour—involve a series of added (although not unconnected) ethical, political and practical considerations that are best dealt with elsewhere. Although fishing is a more regulated and recognised urban recreational activity, the extent to which people use urban spaces for hunting and capturing wild animals is likely even narrower than those hunting [20] for plant stuffs. As Poe et al. (2013:413) explain,

[20] Colloquially, one might "gather" crustaceans or insects (rather than hunt) and "hunt" for mushrooms or rarer plants (or as per the title of Euell Gibbons's (1962) foraging guide, "*Stalking* the Wild Asparagus").

urban gathering happens “along a continuum of human-plant production interactions with gathering on one end, tending in the middle, and cultivation of domestic plants on the other end”. The next chapter will explore something of the ways in which urban food “production” occurs along such a continuum. Geographically, we can also note how “urban foraging can include wild or domesticated species in managed or unmanaged and private or public spaces. The products can be from self-reproducing plants or animals, or from those propagated directly by the harvesters or other people or agencies.” (Shackleton et al., 2017:2).

It is noteworthy that urban foraging need not be defined by the specific typology of spaces in which it is practised but instead by its practice occurring within or on (the broader category of) urban or peri-urban lands. This could be read as an overly simplified, cartographic rendering of urban space, one which does not account for the multiple scales and forms the urban can assume. Along these lines, we might question whether “urban” foraging is categorically or qualitatively different to any other form of foraging other than the incidental aspect of its occurrence in or around a city. Firstly, urban forestry inherently imparts a more than cartographic framing of the city, precisely because of its concern for the urban canopy and its verticality. Secondly, and more significantly, we need not confront the urban in all its dimensions, all at once, to make a meaningful contribution to the state of knowledge. As the thesis will demonstrate, notwithstanding the clear importance of the cultural, the symbolic, the imagined and the semiotic, there is value in beginning at the point of encounter. With this in mind, and somewhat contrary to the existing framings of urban foraging, chapter 3 draws on the empirical work conducted to unpack the different terms and activities associated with “urban foraging”, and in so doing to describe, detail and differentiate the subtle and intimate meanings involved. This connects these close, embodied botanical encounters with wider movements, circulations and ecologies, as well as the language used to describe and reproduce these practices. Given the geography and context, the focus is unavoidably Anglophonic but this in itself, with London’s linguistic and cultural diversity, reveals a series of complex etymologies and meanings. As chapter 5 concerning the urban commons echoes – there is potential for a greater pluralisation and mutual exchange of linguistic terms when it comes to the material encounters of humans and non-humans. Furthermore, I am hesitant to overuse the nominal term “foragers” to describe those undertaking urban foraging. This is for two reasons. Firstly, during the fieldwork I noted reticence on multiple occasions at the use of this label, either because it inadequately or imprecisely described the activities in question or

because it carried with it ambiguous connotations[21]. Secondly, it is perhaps better not to ascribe labels that purport to define individuals or groups in their totality, especially when the practices in question constitute only a part of their socio-ecological lives.

As a final aside, while the focus for this research is urban food from "wild" sources, quite some energy has been concentrated in the area of refuse and waste studies, examining the social and material assemblages arising from the reuse or repurposing of capitalist excess (see Moore, 2012; Gidwani, 2013). In the area of food, markedly more work has been done around the collection of *already-waste* food in cities of the global North, rather than the collection of *living* plant or fungal materials (for instance, see Eikenberry & Smith, 2005; Ferrell, 2006; Barnard, 2011; Vinegar et al., 2013). Although such research presents themes that might bridge geographical and conceptual ground between urbanisms of the North and South, there is an unfortunate tendency to highlight the performative and political aspects of such practices in cities of the North (along with revealingly creative names such as "freeganism" and "bin-diving") and underplay these potentials in cities of the South. The logics and geographies of food waste provisioning encompass both bin-diving and plant foraging[22], although it is in the latter in which we can more clearly see the affective aspects of botanical encounter. The theme of food waste in the context of urban plant foraging is one to which the thesis returns in chapter 2.

To summarise, in "urban foraging" we have an umbrella term to describe various informal provisioning practices, making use of plants and fungi growing in a range of different urba spaces. The presence of these is due to spontaneous growth, botanical escape, neglect, or some functional purpose other than their informal collection and use for food, medicine or material. Such collection is practised in the material spaces in and adjacent to cities (urban, peri-urban) and in the varied spaces inextricably linked to urban spaces through ecology, economy or infrastructure.

1.7 Questions arising for the research

With the preceding discussion in mind, the key questions that have guided this research are outlined below:

[21] It can be problematic if, due partly to its previous and existing use, that "foraging" or "foragers" is interpreted as in some sense "primitive" or animalistic, particularly where such terminology has precedence in colonial violence and dispossession.
[22] Indeed, an anthropological reading might regard bin-diving as a foraging behaviour.

(a) What is the form, range and extent of foraging undertaken in London's urban and peri-urban spaces?

Although there could be survey-based elements to this question, the research approaches it as a qualitative assessment of the extent and limits of the research field to hand. While this approach means it cannot answer the question conclusively and generally, it provides an opportunity to document a range of elements, including the profiles of people involved (e.g. age, gender, employment, ethnicity), their reasons and motivations, the profile of the places in which they forage, how they forage and with whom, what they collect and what they do with the things they collect. Such information can be gathered from those involved, from secondary observers such as green space managers, from direct observation, and from other contexts such as social media. As the research methodology is partly iterative and sampling was through snowballing, responding to this question and recording the details of the practices encountered helped guide the fieldwork as it evolved. Attention to this slightly more descriptive question helped to highlight recurring themes for analysis and provides valuable contextualising information that would help structure further research (e.g. survey methods or mapping exercises to support a fuller ethnobotanical study). See Appendix III for a detailed botanical glossary of the more prominent plants featured in the research.

(b) How does the history of land ownership, use and management in London relate to contemporary foraging practices?

Such a question is important for two reasons. Firstly, in a city with a long history of changing patterns of land use, as well as varied political and ecological conditions, contemporary activities cannot be disentangled from the contexts of the spaces in which they are practised. This meant consulting archives and existing research to locate instances and patterns of urban foraging in London's past. This makes particular reference to the junctures of metropolitan incorporation at the end of the nineteenth century and the Second World War. Secondly, the history of London's metropolitan common land in shaping the material and regulatory form of contemporary green spaces opens up an opportunity to reappraise recent scholarship and activism around urban commons. While the inclusion of a historical component is both interesting and useful, the research is not strictly seeking to develop historical explanation. What it does is develop a link between archival histories and ethnographic elements exploring contemporary forms of engagement with urban green space.

(c) How are different forms of plant-based knowledge articulated and/or negotiated through urban foraging?

This question deals with the overlapping and sometimes conflicting ways in which plants in cities are understood and engaged. Through the interviews and participant observation—both

of foraging and other forms of plant walking (namely, botanical transects)—different regimes of knowledge coexist contemporaneously. It is through lens of this epistemic question that the research explores the interplay between cultural and scientific (both professional and lay) interpretations of the botanical, notably in chapters 3 and 4. Added to this are legal and managerial visions of the city and urban vegetation, demonstrating—as discussed in chapter 2—the divergent values through which urban nature is understood and entangled. In responding to this question, the purpose is neither to construct hierarchies of epistemic authority in relation to foraging, nor relativise all the different forms of knowledge deployed in different contexts. Rather than uncover who has power and who has not, urban foraging—rarely, if at all, "sanctioned"—instead reveals the multiple and uneven qualities of urban environmental knowledge, mediated through the density, proximity and diversity of urban space, people and institutions.

(d) To what extent does foraging offer alternative or radical urban futures?

This final question is driven by some of the more normative extant framings of urban foraging. It is more speculative than it is descriptive or analytical and is largely addressed through chapters 5 and 6, by considering ideas of the urban commons, the more-than-human implications of foraging, alternative economic forms, such as sharing, and the examples encountered during the fieldwork already looking to redesign spaces with accessibility and edibleness in mind. We might rephrase the question as what would a city look like, socially and materially, if it were designed and managed with foraging in mind? This means not only those facets that enable informal provisioning but also those mechanisms prevalent in urban design and development that might inhibit it. While foraging currently remains a marginal concern, by definition different trajectories of urban development—deliberately or not—open up and preclude different uses and possible futures. The material construction of urban space is one aspect but it also asks how foraging could reframe existing urban space, reimagining and reworking its purported uses and meanings. It infers consideration of how urban management can be reconciled with the informality of foraging. Finally, it asks the question of what forms of ethics and communal relationships are necessary for urban foraging to be practised sustainably and productively.

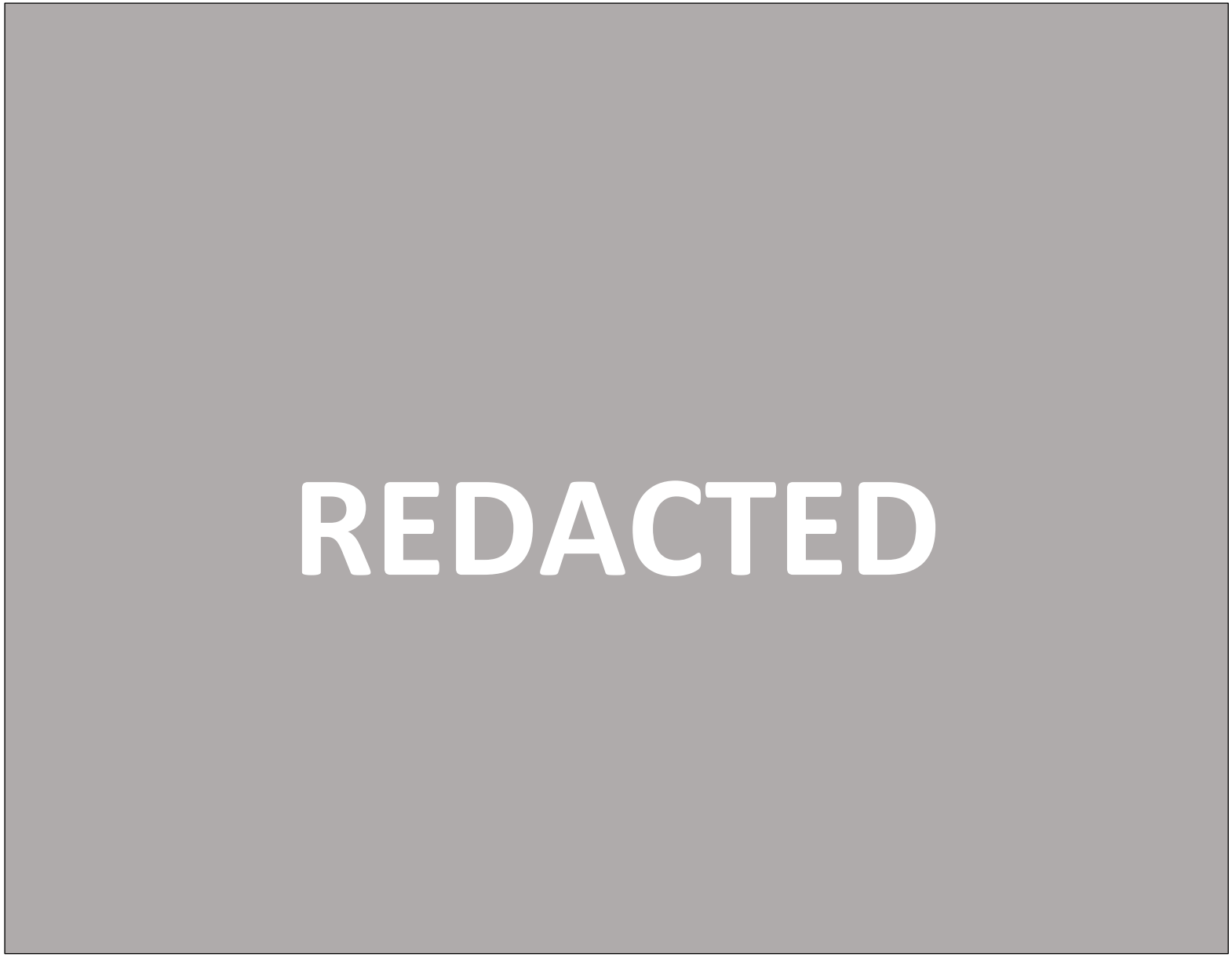

Figure 1.2: Map of Northeast London, depicting key sites of interest for the research.

Source: Philip Stickler, University of Cambridge (2019)

2. Food, foraging and the material politics of urban ecology

2.1 Introduction

Foraging sits on a continuum of different forms and strategies of urban food provisioning; finding itself at the more informal, unplanned and unpredictable end, and in contrast to more technologically-intensive and designed urban food-growing interventions and markets[23]. It also occupies a position at the intersection of urban food politics and wider urban ecologies, and is thus entangled in multiple, differing visions of the "ecological city". Poe et al. (2014) suggest urban foraging practices are generative of and tied up in "relational ecologies of belonging". Therefore, what might they reveal about a city such as London, and the divergent imaginaries used to describe its urban nature? Similarly, in what ways are its landscapes—or foodscapes—relationally constituted? By detailing some of the empirical ways in which foraging and gathering is undertaken in London, the purpose of this chapter is to examine the interrelationship between food and urban space – two contested and ontologically ambiguous points of reference.

Urban foraging, by "short-circuiting" the spaces and agencies of production and consumption, helps reveal the ontological uncertainty of what (and where) food is, what is food and how things become food. By repurposing spaces and the plants that grow in them, foraging helps demonstrate that the status of "food" is not pre-inscribed in the materiality or nature of plants themselves. Instead, they accrue these meanings—*become food*—through the relational, contingent and precarious assemblages to which human provisioning strategies and urban ecologies give rise. This strikes a contrasting image to that of food as stable and staple, produced and provisioned lineally through well-established and spatially disaggregated systems. Alternative urban food networks are actively disrupting the spatiality of urban food economies and reconfiguring the material-semiotic landscapes of cities in the process (Tornaghi, 2014). Yet such renderings of an urban foodscape emerge alongside various, divergent visions of and for the urban nature of London. Some of these are inflected by the techno-managerial logics of the "smart city" paradigm which, while framing ecological governance through the digital and rational control of resource flows, struggles to deal with the "vagabond materiality" of food (Bennett, 2007:135) in cities. Although food can be quotidian and prosaic, its materiality is unstable and lively; liable to take on new forms through decay or production processes, while providing the energetic means for life to

[23] To be more accurate, having established that "urban foraging" covers a multitude of practices, places and plants, it occupies several different areas of such a continuum.

endure. Infused in this materiality are endless cultural, epistemic and semiotic meanings, arising from and co-constituting aspects of social life. Connected to this, urban foraging itself brings into question the simplicity of "food waste" as a problem that can be managed out, by bringing into circulation plants and materials with contested ontological meanings. Such circulation (material and semiotic), through urban landscapes of diversity, proximity and density of encounter, generates the conditions in which London can be understood as a city of *both* abundance *and* scarcity; food poverty *and* excess; and in which foraging and wild food are symbols of subsistence *and* leisure. These binaries are arguably neither incongruent nor novel and can be understood as condition of urban life under late capitalism[24].

The chapter briefly considers the shifting position of nature in/of the city within an international context and then explores developments in London around food and ecology that exemplify these broader processes. However, what should be clear is that while there may be a global dimension to the changing status of urban nature, it is experienced at a peculiarly immanent and embodied level. The presence and practice of urban foraging in London occupies an awkward space in the various framings of London's urban nature – both intuitively connected but practically challenging. Following this, the chapter explores some empirical observations of the fruit picking and gleaning networks that have emerged over the last decade in the city. These collect, process and distribute fruit from gardens, parks and streets that would otherwise go to waste. While making valuable contributions to local communities, such activities reveal some of the blurry lines of where food—and food waste—begins and ends. Following this, the discussion draws on work within agro-food studies and what Michael Carolan (2013) has termed the "relational turn" in the discipline. Across varying facets of food, writers including Emma Roe, Jane Bennett, and Lesley Head and colleagues, have attended closely to the intrinsic fluidity of its conceptual and material boundaries. Such accounts are instructive for thinking about how urban landscapes themselves generate multiplicity and contestation, as well as meaning, for the food, plants and ecologies they accommodate. The final section follows the liveliness of urban plants themselves and how they defy or transgress human-constructed boundaries. A counterpoint to cities as "edible landscapes" is the complex ways in which plants are rendered *inedible*, not through their material composition but human framing and responses to their presence. "Invasive species" such as Japanese knotweed (*Reynoutria japonica*) that grow successfully and profusely in urban conditions hold ambivalent meaning for different inhabitants and institutions. Examining both what is foraged and what is not asks us to imagine alternative

[24] More often than not, I opt for the term "latest" capitalism because it evades the prospect of predicting capitalism's timely and definite demise.

visions of the city, through the eyes of foragers (and others) and how they encounter and value urban plants. But it also asks us to consider the agency of plants themselves (Marder, 2013a; Ginn, 2016) and the ecologies through which they arrive and find space in urban landscapes (Kowarik, 2005; Del Tredici, 2010). Urban foraging and the interpolation of humans into the lives of city-dwelling plants therefore provides different "vantage points" (Simone, 2013) and subjectivities from which to observe urban life. Importantly, these multiple vantage points resist attempts to present the city as a coherent ecological entity, capable of being understood, managed and branded as a single order of experience. I argue that in many ways, food often eludes the logics of smart city governance because, metaphorically and materially, it does not behave—it does not flow—like water, energy, electricity or data. Urban foraging can function as an alternative or subversion of imposed visions of urban nature, one found both within the limits of its material resources and in excess of its geographical horizons. The *uncultivated, unintended* and *unattended* plants of an urban landscape can become the vehicles through which we live out an imagined form of the city, one both material and semiotic in nature.

2.2 Seeing the nature of cities differently

The international agenda of and for cities has seen a marked shift since around the year 2000 – a moment marking the beginning of the so-called "urban century" (Heynen, 2013). The 'New Urban Agenda', as formulated through UN Habitat III in 2016, represents international consensus around the importance of cities as the primary environments in which humanity now resides, as the crucial drivers of processes effecting global ecological change and the redemptive possibilities that they might engender. Indeed, in contrast to past negative depictions of cities, "new conventional wisdom' about cities […] emphasizes urban processes as sites of opportunity and potential, not just as problems" (Barnett & Parnell, 2016:91). And yet, the eclectic "consensus" embodied by the New Urban Agenda,

> …might well mask underlying differences in why and how cities matter, what should be done to advance the urban agenda, why cities matter for sustainability, and indeed what defines a city in the first place (Barnett & Parnell, 2016:89)

As a 2018 report from the Nature Conservancy makes clear, impacts of urbanisation on nature occur at various scales from the global to the level of the neighbourhood. Urbanisation is a significant driver of habitat loss through urban expansion into and fragmentation of local ecosystems, through the ecological impacts of increased demand for resources, and through emissions, waste and unsustainable extraction in and around cities (McDonald et al., 2018). The report underlines the importance of urban nature for human wellbeing, in addition to biodiversity conservation, albeit through the prism of "ecosystem services", and in particular

climate change adaptation and mitigation. It also notes the various other facets through which urban nature impacts human wellbeing, including that in "some parts of the world urban dwellers depend on natural habitat on the fringes of cities for their livelihoods, through activities such as harvesting food, obtaining materials for shelter, and keeping livestock" (McDonald et al., 2018:49).

Cities themselves are increasingly sites of interest, value and experimentation within the ecological sciences – representing novel material assemblages and flows, along with spaces of refuge and adaptation on the part of nature. Urban landscapes, particularly in post-industrial contexts, have spurred the generation of new forms of scientific knowledge and political alliances between people and nature, with particular reference to specific cities such as Berlin (Lachmund, 2013). Through pioneering work in the UK, the ecologist Oliver Gilbert (1983) offered profiles of different British cities based on the typical assemblages occurring in their waste spaces, or as he terms them, "urban commons". This term, as chapter 5 will unpick, has a particular resonance and one to which Gilbert had a degree of sensitivity in his deployment and reworking of the term. As a contemporary and colleague of German urban ecologist Herbert Sukopp, the term has some corollary to the German "brachen", as deployed in the context of Berlin (Gandy, 2017). Both originally bore agricultural connotations but garner new meaning in the context of derelict urban spaces, including added cultural uses and imaginaries[25]. As the next section explores, such scientific interest, alongside local activism, were instrumental in processes of nature conservation in cities such as London. In a call for a more dedicated disciplinary focus on cities as emergent, complex ecologies, Alberti et al (2003:1171) explain how human-transformed landcapes "have rich spatial and temporal heterogeneity—a complex mosaic of biological and physical patches in a matrix of infrastructure, human organizations, and social institutions". For them, the ecologies of cities represent a counterpoint to a paradigm that strictly distinguishes between socioeconomic and biophysical processes, or which treat urban landscapes as homogenous ecological entities. With regards to urban botany, these conditions give rise both to emergent assemblages of plants and new scientific classification. With reference to the work of Kowarik (2005), Del Tredici (2010:299) points towards three broad categories of urban vegetated land: remnant native landscapes, managed horticultural landscapes, and abandoned ruderal landscapes. As he points out, urban ecology must take into account that the "origin and global dispersal of the spontaneous vegetation that dominates abandoned urban land is as

[25] "Brachen" can be variously as "wasteland" or "fallow" and retains a linguistic and conceptual site-specificity to post-war German cities. Historically, "commons" as category of can refer to range of different types of agricultural land but has shed its site-specific meaning and come to be used somewhat universally to describe communal spaces and practices.

much a cultural phenomenon as it is a biological one" (Del Tredici, 2010:304). This is important when considering that the material presence and image of spontaneous urban vegetation can take on differing cultural meanings, such as a "visible manifestation of dereliction and neglect, even though they may view the same plants growing in a suburban or rural context as 'wildflowers'"(2010:309). Nativity and ecological function are two related but distinct concerns affecting how urban nature is understood and managed.

While food and agriculture are undoubtedly implicated in the ecological processes of cities and urbanised landscapes, relatively little research has synthesised the increase of urban food-growing *within* cities to more formal framings of urban ecology[26]. The possibilities of urban food-*producing* landscapes echoes the point made above that increasing attention is being paid to the redemptive possibilities of cities. Of course, urban food growing is not all that novel, being a persistent feature in the histories of cities in the global north and south. What is novel is the embrace of urban farming and agriculture and its being take seriously at a political and commercial level, along with the ways in which food growing has been integrated into elite-driven visions of the city (McLintock, 2014; Horst et al., 2017). This trend reflects increased anxiety around urban resilience and food security, and a marketable strategy and image for new urban developments. In cities of the global North, such as London, Morgan and Sonnino (2010) point towards the nexus of five "disquieting trends" that have undermined collective complacency around (and the notion of having already overcome) questions of food security[27], including price surges, climate change, national security threats, and land conflicts. What they term the "new food equation" has spurred strategic thinking at the metropolitan level as to how cities can ensure access to necessary and appropriate food and how demand-side measures can influence the sustainability of supply chains. With regards urban food production, it has meant, "new planning dispensation for urban agriculture to enable the city to feed itself from within (as in London)" (Morgan & Sonnino, 2010:222). Within these planning regimes the possibilities of and for spontaneous, wild plants and their possible contribution to local diets and food pathways is altogether overlooked.

That processes of urbanisation function at different scales is nothing new but the increasingly planetary framing of their impacts, and the registers in which we talk about them (Brenner, 2014), prompt a blurring of those scales. As Morgan, (2010) has discussed in relation to food, these shifting scales can have the effect of unsettling the meaning and geographies of "local"

[26] Its reliance upon soil, nutrient cycles, chemical inputs, water and pollination, along with its contribution in energy, wildlife refuge, ecological infrastructure, cooling effects, biodiversity stores and flood mitigation.
[27] We can subsequently add the UK's departure from the European Union as both perceived and material and threat to London's food security (see Lang et al., 2018), a point to which the thesis returns.

in the context of food and ecological citizenship. Scott & Storper (2015) have attempted to argue that there remains something distinctly local and concrete about the urban as:

> "clusters of productive activity and human life that then unfold into dense, internally variegated webs of interacting land uses, locations and allied institutional/political arrangements" (Scott & Stoper, 2015:7).

Contestations about the definition of the city and where the limits of the urban lie make it difficult to assess where the modest figure of urban vegetation fits within broader urban theory. What is clear, is that the excess of the urban—its push beyond the city's cartographic, socio-ecological and scalar boundaries—create the conditions in which its multiple imaginaries can be sustained at once. Urban plants and their varied possibilities bear an unavoidably immanent, material quality but also emerge in spaces through which they can be interpreted differently and generate different meanings. As relayed below, the excess of the social experience of the city—the exceeding of an individual's capacity to grasp it—also makes such imaginaries of urban nature necessary.

The varied iterations of what constitutes a city's nature (and the nature of a city) have not evolved lineally but connect with different intellectual, political and geographical contexts. These range from the Marxian critical theory of urban political ecology, to ecology-inflected (or fully biomimetic) trends in design and planning, to the algorithmic and cybernetic logics of "smart" city management, and dedicated sub-disciplines within biological sciences and landscape ecology (Gandy, 2015). Smart urbanism in particular has become an increasingly prevalent means to imagine and manage the city, "bounding it as a manageable totality through real-time data" (McFarlane & Söderström, 2017). Alongside terms such as "creative", "sustainable" or "liveable" cities, the "smart city" is an increasingly important component of the language games that:

> Shape the imaginaries and practices of a myriad of actors concretely building the city through particular case studies or pilot projects, decisions and everyday action (Söderström et al., 2014:307)

It is also a specific technique of corporate control, making major technology companies integral agencies of urban governance. For Cowley et al. (2017), smart city programmes in the UK, rather than purely dystopian, open up into different forms of "publicness" that enrol citizens into the management and politics of the city. Yet, despite a projected sense that digital technology and governance can bring all of a city's functions "under control"—from civic participation to management of basic services—the smart city paradigm tends to gloss over its own inadequacies. For example, food is often omitted from the carefully designed

infographics promoting smart city schemes. Food becomes a more manageable metabolic flow, once it passes into material waste streams, rather than dealing with its problematic materiality and complex cultural meaning (Jackson et al, 2018; Blake, 2019). So too the immediate ecological processes in which cities are embedded are only selectively understood to fall within the purview of the smart city – often identifiable "service" flows, such as water, electricity, gas, waste, information, data. Yet, when considering the varied foci of ecology *in, of* and *for* the city (Pickett et al., 2016), the smart city, while purportedly all-encompassing, appears to connect only partially, or in parallel to many of the ecological processes governing, for example, the proliferation and growth of urban vegetation.

2.3 The shifting status of London's urban nature

Perhaps the best indication of the shifting status of urban nature in London has been the campaign, initiated around 2014, to declare it a "National Park City". This designation, not captured within existing legislation, has been forwarded as a rallying call for the protection and promotion of varied aspects of London's natural capital. It aims to make spaces of nature accessible to the public and connect citizens with their environment. It has been largely successful both in terms of recruiting support, and in inserting itself into conversations about the role of nature in the city. Having reached the target it set itself of over half the local council wards (the smallest political unit through which the city is governed) signed up, a "National Park City Festival" took place in July 2019, with support from the city's mayor. Much could be unpacked about the initiative but a pertinent point is how its all-encompassing vision for and of nature in London eludes the need to distinguish between better and worse uses and forms of urban nature. As effective a campaign as it has proven—aided by sophisticated crowdfunding, design and visualisation—by not proposing or assuming any formal planning powers, it has not set its task as governing or managing said National Park City. Its vision relies upon a marked distinction between "green" and "grey"[28], irrespective of the qualities or practical functions spaces might play, or the success that vegetation, for example, might find in otherwise "grey" spaces. For Angelo and Wachmusth (2017), the emergence of "urban sustainability" is increasingly framed through the aesthetic and representational qualities of "green" (verdant, vegetative, biological) and "grey" (technological, infrastructural, constructed). These oppositional, but interconnected, ideological framings of urban nature feed into varying visions of the city and its sustainability by providing, "common sensical simplifications of social reality" (Angelo & Wachsmuth, 2017:1052). This echoes the point made in the previous section where imagined versions of

[28] One of its proposed services includes "inspiring Londoners to remove paving in front gardens in favour of planting flowers"

the city become necessary, "given that society is too complex and multifaceted to be apprehended directly" (2017:1042). Aside from the forms of power that such representations prop up, it also "obscures the fact that there are no necessary differences between these two ideas of sustainability with respect to their environmental content or their objective sustainability outcomes" (2017:1052).

The idea of a National Park City, which is raised again in chapter 6, arguably consolidates numerous distinctive themes and changes affecting London, offering a vision of a cohesive and singular socio-ecological entity where previously developments had been uneven, decentralised and multiple. This tendency, along with the large degree of local diversity in terms of the availability and quality of green space, reflects the relative weakness of metropolitan governance at the mayoral level and the continued importance of local boroughs in the planning and regulatory regimes of the city. Although this lack of political and ecological coherence has proven a barrier to strategically conceiving London as a "smart city" or an "eco-city", the growth of interest in its urban ecology has been influential. From the 1980s onwards, a new agenda around ecology, planning and urban design began to emerge in London. This stemmed from insights from the nascent field of urban ecology (particular concerned with the ecology of former industrial sites), international attention on the role cities were playing in the exacerbation of global environmental crises, and a continued shift towards a service economy prompting political interest in fostering and curating the international reputation of the city.

Organisations such as the London Wildlife Trust, founded in 1981, have been instrumental in campaigning, lobbying, recording and managing nature spaces in the city. One of its flagships sites, Camley Street Natural Park, was established through the efforts of local residents and campaigners to preserve the rich variety of flora and fauna that had occupied the site of the former coal drop yard serving Kings Cross Station, and flanking the Regents Canal, after its closure in 1967 (Kamvasinou & Milne, 2019). The Trust was tasked with landscaping and managing the site by the Greater London Council in 1984 and it became designated a Local Nature Reserve in 1986. Whereas at the time these campaigners' efforts were seen as a hindrance to the regeneration of the area, the space is now a celebrated motif for the (ongoing) development of the Kings Cross Central site. More recently, work has commenced on the site to construct an "ecological knowledge hub" at the park, approximately two acres in area, through finance from Lottery Heritage Fund, as well as Section 106[29] funds from the Kings Cross development.

[29] Section 106 funding is a scheme for mitigation/offsetting associated with development projects in the UK.

The London Olympics in 2012 were labelled as the "most sustainable games in history". Organisers went to enormous effort to ensure the games provided a legacy for the city, minimised negative impacts and produced innovative solutions to ecological problems. Sitting in the Lower Lea Valley, the park itself is one of the major outcomes from the games, which includes significant acreage of ecologically restored land and efforts to elevate levels of biodiversity and mitigate loss. The development around the Olympics represents another marker in the emergence of the ecological status of London. This is further reflected in the attention provided for ecology and biodiversity in the various iterations of the London Plan, the city-wide spatial development and planning strategy first introduced by the London Mayor in 2004. While embodying a major planning and governance failure, the infamous and now-abandoned Garden Bridge project proposal (which envisioned a foot crossing of the Thames between Waterloo Bridge and Blackfriars Bridge) demonstrates the extent to which ecologically-oriented (if not well-informed) design in London has reached the highest echelons of the city's imaginaries. A further, literal example of the profile urban greening has reached in London is the so-called Sky Garden at 20 Fenchurch Street, a landscaped garden and viewing platform atop a high rise building in the financial heart of the city. While purportedly a "public" space, it is not easily or openly accessible, reflecting a notable pattern of enclosure and privatisation amid London's ecological turn and an example of new ecological design discourses, in addition to features such as green walls and roof gardens.

Perhaps more substantively significant than showpiece urbanism framed around ecological concerns and aesthetics is the major uptick in activity at policy and grassroots levels to attend to and promote the position of urban nature initiatives. As early as 1996, the London Biodiversity Partnership had been formed and authored London's Biodiversity Action Plan (1996), followed by the (newly established) Mayor's comprehensive Biodiversity Strategy (Greater London Authority, 2002). This recognised not only conventionally understood urban nature spaces but also cemeteries, gardens and allotments, community gardens, railway land and roadsides, and wasteland as sources of biodiversity value. Subsequently, biodiversity planning was undertaken by a variety of organisations and tiers of government working in the city (e.g. borough councils, Transport for London, utility providers, and civil society organisations). Specific policy and spatial planning guidance for "protecting London's open and natural environment" has been made through the London Plan, which has tended to evolve to changing policy conditions and concerns[30]. With all that being said, since around 2010-11, with structural changes and restrictions on resources, London's biodiversity

[30] For example, the latest version of the London Plan (2017) sees greater emphasis and provision for housing density, partly in response to increased political concern over housing availability

conservation has seen a slight unravelling. This includes uneven monitoring and record keeping, stalled or inactive local biodiversity partnerships (including the winding up of the London Biodiversity Partnership in 2013), continued development pressure and species loss, and the use of alternative mechanisms for conservation delivery (London Wildlife Trust & GiGL, 2013). Of interest in this summary of a 2013 biodiversity audit, is its noting of various new concepts that have since become increasingly mainstream in urban ecological discourse and practice, including "ecosystem services", "biodiversity offsetting", "landscape approaches", and "green infrastructure". Intriguingly, it also comments on the growth of so-called "urban rusticism", which includes "beekeeping, guerrilla gardening, 'pictorial' meadow-making, and local food-growing", which, while providing valuable means of engagement with wider audiences, "lack strategic coordination or link into existing programmes of biodiversity conservation activity" (LWT & GiGL, 2013:6).

Relatedly, while the growth of London as a "green" city covers both increased interest in biodiversity conservation and opportunities for urban food growing, the provision in planning for them (including in the London Plan) is largely disconnected. With a few exceptions, this mirrors the limited degree of scientific attention paid to the specific ecological impacts and roles of urban agriculture, farming and food production in cities. Food growing, broadly conceived, has seen a commensurate increase in interest and activity as urban ecology in the past twenty years, although the reasons and trajectories are likely slightly different. It is difficult to assess levels of urban food cultivation in the past, not least because when undertaken at a small-scale and a domestic setting, activities tend to fall outside of institutional and regulatory gaze. Demand for allotment space—a recognisable indicator for modern food growing in London—has increased exponentially over that period, with waiting lists extending up to ten years and more. This reflects an increased demand and interest in the benefits of domestically grown fruit and vegetables, and the failure of local authorities to meet their statutory obligations in the context of high demand for and value of urban land (see Acton, 2011).

While city authorities and "place-makers" have, in various guises, attempted to brand London as a city of food production, they have often failed to furnish many citizens with access to the archetypal measures and mechanism of home growing. Recent innovative and unconventional architectonic interventions for urban farming and growing reflect an environment of extremely high land values. For example, vertical farming, in which urban agricultural production is designed into the structures of new buildings, has been forwarded by some as a potentially impactful and profitable means through which to make use of finite space and resources (Benke & Tomkins, 2017). While such initiatives are currently more

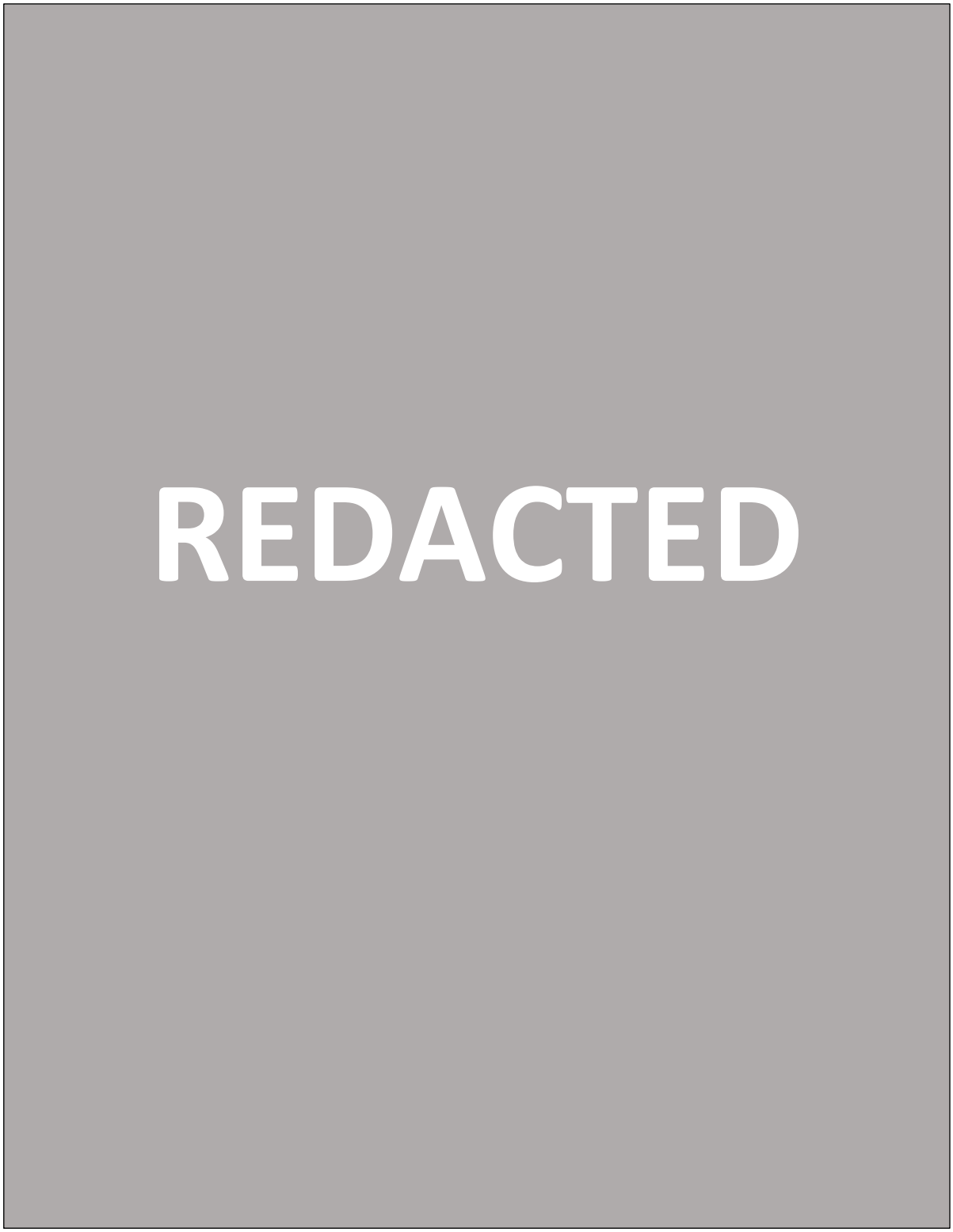

Figure 2.1: Allotments, Highgate. Source: photo by author (2017). Provision of allotments is a statutory obligation of local councils but waiting lists in London can be as long as ten years. While urban food growing has a long history in the city, it is increasingly embraced as part of the vision and agenda for London. Allotments also provide opportunities for gleaners and foragers to collect foods. Allotments are often situated on marginal lands but can also be found interlaced in the city's fabric. Here, allotments are located adjacent to Hampstead Heath (see figure 1.2, p50).

vision than practice, the repurposing of disused underground railway tunnels for use in closed-loop and hydroponic production of high quality herbs and greens are already in commercial use (Epstein, 2017). Such production facilitates close control of environmental conditions, shielded from the vagaries of unpredictable seasonal and climatic conditions. Such methods and outlooks, while offering efficient and productive uses of space and resources, function precisely through the insulation of cultivation from the prevailing ecologies of a city, in privatised and enclosed space. Space for food growing can be portrayed as a positive facet of new developments, while also acting to privatise and limit access to growing space.

Community food growing, farming and production is one of the more visible responses to the increased demand for and restrictions of space for growing. Capital Growth, a dedicated programme emerging from the work of Sustain—a leading charity working on sustainable food and farming—is dedicated to the coordination, support and extension of community gardens and food growing schemes. Its initial rationale was centred on the provision of growing spaces in London as a component of the legacy of the London 2012 Olympic Games and, as of 2017-18, has registered over 3000 food-growing schemes as a part of its network. While providing grassroots initiatives with training, support, and finance, its citywide outlook, as well as its standing and strong relationships with local government, means it has acquired an important standing and role in the official image and strategy of food growing in London. Capital Growth's "Harvest-ometer"—a tool with which growers can measure and quantify the value of their produce—reflects a wider trend through which civil society organisations are increasingly required to demonstrate output and impact of their work and, in the case of food growing, record the volumes or foods produced or saved from waste. Whether a measure of monetary value, gross weight or calories provided, efforts to measure what is grown and collected—a regular practice during fruit harvests I attended—can be useful for organisers but also, in an age of austerity, shows the increased emphasis on "proving" the good you are doing.

There are various "goods" accrued from and associated with urban farming, agriculture and growing, only some of which can be understood as specifically ecological. In a review of existing literature on the benefits and limitations of urban food production[31], Santo et al. (2016) capture many of the purported and measured impacts. Although the urban contexts are certainly different and concerned with a North American context, many of its themes are

[31] As the authors note (p1), most literature examining urban agriculture concerns community farms and gardens, as opposed to private or domestic gardens, or more novel forms such as vertical farming, rooftop gardens, green walls, aquaponics or indoor farming.

similar to that of London and the UK. They categorise the various benefits and limitations as sociocultural considerations (social benefits, education & skills, exclusion and marginalisation), environmental sustainability (ecosystem services and environmental limitations), public health and food security (individual health, and community food security) and economic development. In each of these categories, there is a mixture of potentially positive and negative impacts, although it is worthwhile bearing in mind that, "urban agriculture's most significant benefits center around its ability to increase social capital, community well-being, and civic engagement with the food system" (Santo et al, 2016:22).

One of the areas in which Capital Growth has been working in London is in developing the human capital and business planning to make urban growing economically viable practice and sector. An oft-cited example of recent success in this regard is OrganicLea, a worker cooperative farm based in the London Borough of Waltham Forest. It is located in Chingford where the edge of Epping Forest meets the Lea River in East London and has been running since 2001. Beginning on derelict allotment land, the enterprise expanded into a nearby local plant nursery site, closed by the council in 2007, and also a community hub and café. As well as growing fruit and vegetables for a box scheme, supplying local restaurants, cafes and market stalls, it also coordinates supplies from smaller urban food growers and provides training and support for similarly oriented schemes in the area, with the intention of fomenting a local food economy. It has been used as a case study to demonstrate to local councils the economic resilience benefits of community food enterprises (Walton, 2018). More recently, its successes have brought the attention of Haringey Council (the borough occupying the opposite side of the Lea Valley) with regards a vacant nursery site at Wolves Lane. Such successes are marred slightly by their flourishing in the wake of the retreat of the state (for instance after the closing of council-run plant nurseries) making extant cultivable urban and peri-urban land available. Perversely, in an urban context, the great many positive direct social and economic outcomes food-growing schemes such as OrganicLea generate also have the potential to contribute to forms of ecological gentrification (Dooling, 2009) by rendering areas more appealing to housing markets and increasing land values and prices through certain modes of "place-making" (Anguelovski, 2015). As with archetypal city cases such as Detroit, Michigan, both formal and informal food growing schemes in London have helped fill social, economic and spatial gaps left by the withdrawal of the state, most recently, through austerity and deindustrialisation in the longer term (Vitello & Wolf-Powers, 2014). As well as its social contribution (as "commons"), food growing provides a "creative" and aesthetically pleasing fix to the perceived problem of dereliction and vacancy, avoiding

"wasted" land, but often does so on only a temporary and precarious basis (see Eizenberg, 2012).

2.4 Landscapes of waste, abundance and scarcity

While thus far this chapter has largely focused on the area of *cultivated* food growing in London—occupying the larger share of discourse and acreage—evolving strands of work are looking to expand this thinking to imagine the whole city as a landscape of food production. If at one pole of urban food growing we find more intensively designed, controlled and formalised schema (such as vertical farming, hydroponics or rooftop gardening), ideas of urban forest gardening or edible landscapes are locatable towards the opposite end of such a spectrum. The final chapter returns to the question of how design and designers do or could approach the informality of practices such as foraging. "Edible landscapes" can refer to a number of different approaches to food growing and growing food. On the one hand, it can generally mean the widespread use of urban spaces for food cultivation, irrespective of who does the growing, what is grown and how such spaces are accessed or managed. On the other hand, it can more pertinently refer to the informal practices of planting and gathering foodstuffs from otherwise left or unmanaged urban spaces. One research participant, forager John Rensten, published *The Edible City* in 2017 as something of a meditation on how to reimagine city spaces as potential food sources, discussing the botanical, culinary and medicinal meanings of plants appearing in cities throughout the year. As some of the following chapter expounds, there are marked differences in the modes of encounter in such imaginings, from the individual to the communal.

Beginning as a citizens initiative in the Yorkshire market town of Todmorden, the Incredible Edible network has expanded to include towns and cities across the UK and internationally. It centres on the idea of growing food in disused and accessible civic spaces as a means of reconnecting communities with food and their environment. As opposed to occupying vacant lots for urban agriculture, this involves planting in readily accessible spaces, and encouraging people to pick and take as much as they need. It is, as founder Pam Warhurst (2010) points out, not based on an ethos of asking permission but *getting on with* things to better a townscape. It does not stop with planting and picking but looks to provide educational opportunities, jobs, and to foster a more sustainable local food economy, while connecting people together. Outside of this network, other initiatives such as the Transition Towns movement have adopted similar programmes (see Mason and Whitehead, 2012, Kenis and Mathijs, 2014, Moragues-Faus and Morgan, 2015). Others, including charities such as Trees for Cities and local authorities are also increasingly looking at the potential of edible planting

and landscaping as a form of strategic policy intervention to increase access to nature and sources of fresh food.

The openness of such planting schemes can promote a greater degree of access for a range of community members to informally access the urban forest, and avoid the potentially exclusionary effects of small numbers of residents controlling access to community gardens and growing spaces. However, planting open, edible landscapes is not without its challenges. As community organisers explained on a guided walk around their housing estates[32] in Southwark, tree selection and a lack of maintenance had caused immediate issues for the trees planted in the area - mitigation of the impact of the redevelopment of the nearby Elephant and Castle neighbourhood. Much has been discussed about the development of the area, the demolition of the iconic brutalist Heygate Estate and the politics of regeneration and gentrification (Lees & Ferreri,2016). Less has been explored of the impact on the wider area and community—those who live in the shadows of the new constructed tower blocks—including the supposed offsetting of tree loss by planting around their estates. The existing social infrastructure of the estates had already been actively nurturing potential edible landscapes through the planting and restoration of fruiting trees present in the area, notably on the Alberta Estate with the establishment of the Alberta Fruit Commons. Tucked away on a footpath between low-rise housing on the Newington Estate are a series of apple trees and one quince tree. Emerging from the concrete, the small orchard creates a canopy that covers much of the thoroughfare, reminiscent more of an urban setting in the South of Europe rather than Southwark. Residents explained the process through which the trees were planted and maintained by the community. The apples, they said, tended to grow fairly quickly but took longer to mature and thus remained unpleasant to eat until the autumn. This did not deter passers-by in the first year of significant fruiting from taking all the available apples, well before they were at their ripest. Not only did nearby residents not get to enjoy the fruit but those who picked the apples failed to grasp the seasonality of the seemingly edible food on offer. Open landscapes can promote accessibility but do not necessarily contain the cues or expertise to understand how plants and their produce can be effectively utilised; while enclosed common spaces can foster internal relations and effective growing strategies but limit the circulation of the foods cultivated.

Part of the rationale and ethos of the so-called “smart city” is the power of technological and algorithmic governance to manage the uneven dynamics of supply and demand – producing and providing energy or water as, when and where it is needed and avoiding wastage or surplus. In relation to food, the material in question does not always move smoothly or

[32] The Alberta Estate, the Draper Estate, the Newington Estate, and the Pullens Estate.

simply through networks. With different degrees of perishability, values and uses, and logistical implications, the non-fungible aspects of food make its efficient sharing and provisioning, even in spaces as connected as cities, a challenge[33]. Numerous organisations and initiatives have emerged in London—often as ICT-enabled platforms such as OLIO[34]—to simultaneously address food wastage and hunger and nutritional deprivation among some citizens (see Marovelli, 2018; Davies & Legg, 2018). Among these, some, such as City Harvest[35], are concerned with food wastage at the bottom end of the food supply chain (from retailers, restaurants and caterers), while organisations such as Feedback[36] focus much more on potential wastage at the level of the farm, orchard and, as discussed below, parks, gardens and streets. While often technologically-enabled, it would be difficult to classify these platforms as a component of the "smart city" paradigm, precisely because they do not constitute a centralised and automated form of urban data collection, management and governance[37]. Such initiatives, although networked are markedly analogue in their modes of provisioning and redistribution. This is as much a feature of technological and logistical limitation, and the inherent characteristics of urban space. The spectre of waste—particularly of *food* waste, which appears to carry added moral and emotional affect—looms heavy over a city such as London, with its striking patterns of inequality and food excess (the city has 69 Michelin-starred restaurants[38]) and food poverty (there are an estimated 95 food banks within 30 kilometres of the centre of the city[39]).

Over the last ten years, various groups have emerged across the city to collect urban fruit that would otherwise go to waste. This growth matches that of wider concerns around food waste and the risks arising from an inequitable and unsustainable food system. Many groups are associated with local "transition town" initiatives – organisations looking to facilitate a just transition to sustainable economies (Mason & Whitehead, 2012). Relying as they do on volunteers to organise, pick, and distribute fruit, as well as offer trees, some groups have come and gone during that period, due to dwindling participation or the end of funding.

[33]Urban food sharing itself contains various different components with relevance to the discussion here (see Davies & Evans, 2019)
[34] 'What is OLIO', *OLIO* [Online]. Available: https://olioex.com/about/. Accessed: 01 July 2019.
[35] 'What We Do', *City Harvest* [Online]. Available:http://www.cityharvest.org.uk/. Accessed 01 July 2019
[36] 'Urban Harvesting', *Feedback* [Online]. Available: https://feedbackglobal.org/campaigns/urban-harvesting/. Accessed: 01 July 2019
[37] While food waste has an important value and function for many of the world's urban poor, its materiality and its perishability mean its informal economies are somewhat foreshortened in comparison to metals, plastics, glass (and even biological waste).
[38] According to the Michelin restaurant guide map. Available: https://www.viamichelin.co.uk/web/Restaurants/Restaurants-London-_-Greater_London-United_Kingdom. Accessed: 01 July 2019.
[39] Based on 54 Trussell Trust food banks (Available https://www.trusselltrust.org/get-help/find-a-foodbank/. Accessed: 01 July 2019) and 41 independent food banks (Available: http://www.foodaidnetwork.org.uk/mapping. Accessed: 01 July 2019.)

These different groups and their members are well known to each—connected via the national "Abundance Network"[40]—and tend to correspond to different neighbourhoods of the city. While there are a number of groups present, distinguishing London from other locations in this regard, the coverage of the city is patchy and dependent on the availability of organisers, pickers, trees and places to send the fruit. The groups also vary in terms of how they organise themselves: some are more formalised entities and others are looser networks of individuals.

For those who organise around finding, collecting and sharing the city's otherwise left fruit, there are many motivations for taking part but avoiding food waste is primary among them[41]. Other reasons include reconnecting with nature in the city, while others think of it as an opportunity to reconnect with their communities and neighbourhoods. As detailed in the next chapter, for some organising and participating in fruit picking, and the activities connected to it, such as cooking, preserving, baking, juicing, distributing and selling, are ways to deal with social isolation after having children. Indeed, parents often bring along their children when harvesting fruit as it provides an educational, low-cost, safe and physically active pastime. Relatedly, others use fruit gleaning as a reason to stay active, while it also provides opportunities for mental wellbeing, mindfulness and contemplation. It also brings along those seeking to learn about food and plants, and provides the chance to better explore less familiar areas of the city, including both public and domestic spaces.

During the fieldwork, I joined picks and events with four of the most active and most established groups, generally harvesting in the north and west of the city, although sometimes further afield. Around mid to late summer, the first few messages begin to be circulated or posted on online forums, identifying trees to be picked. Many of these are trees to which the groups have returned year after year, generating a familiarity with both plant and owner. Much harvesting is undertaken in private, domestic gardens, but it also extends to local parks, streets and nature areas, where fruit is accessible, valuable or interesting. Owners, learning about the harvesting groups via word of mouth or local noticeboards, volunteer their trees to be picked. Sometimes this is due to surplus fruit, other times it is due to a lack of capacity, time or desire to clear up windfall. They may well have inherited trees from previous owners or planted them at a time when they were more able to cope with the physical exertion of harvesting. Invariably, offering up their trees for apparent strangers to pick stems from discomfort at the idea of usable foodstuffs going to waste on their property. This is not quite

[40] An umbrella network and website for coordinating events, sharing resources and learning.
[41] This is corroborated by the findings of an unpublished report by V. Stein (2017) *Report on a Survey of Local Fruit Harvesting Groups in the UK and Support for Developing the Abundance Network.*

the same as rescuing food from bins or gleaning once cultivated fields are harvested - even when fruit is consumed by property owners, such produce is yet to enter into the food system. When picks are conducted outside of such private settings, the responsibility for what would otherwise be "wasted" blurs even further.

Armed with extendable poles, tarpaulins, bags and boxes, we would meet in groups of four or five, on the street where we would be picking. More often than not, this would be early on a Saturday or Sunday but picks occasionally take place during weekday evenings. For most, these locations were close to home; for me it normally involved public transport across the city. The most common fruits to be collected are apples and pears but sometimes things more artisanal and interesting, such as quince, damsons or sloes were involved. When in gardens, we would first assess the trees, the quantity and ripeness of fruit, and the logistics of getting it down. Donning helmets, the first task is frequently to get at the literal low-hanging fruit, within arm's reach to the ground. Once the easier ones were collected, the baskets on the end of the metal pickers would be exchanged for hooks and a tarpaulin stretched out beneath a section of the ground beneath the tree. Grasping a sturdy branch, someone on the ground shakes the tree to see what will fall. A hush descends just as the rustle of the branch shaking begins and an affected pause before the "thud" of the first apple striking the taut mat collectively suspended just above the ground. After a few picks, it becomes clear how the more experienced harvesters had overcome the initial desire to collect *every* possible piece of fruit, and instead focus on the most usable and practical, even when the trees still appear laden with fruit.

Once a pick is deemed complete, and enough fruit collected, it is weighed and recorded. This tonnage is scribbled down in notebooks to be collated at the end of the season for a final figure of the amount collectively picked. If there is a specific destination in mind for the fruit (for example an event or community kitchen), enough is set aside, and the rest divided between the owner and the pickers. Any surplus beyond this is generally dealt with by the person in charge of the pick. Funds accrued from selling the fruit, juices, ciders, preserves and fruit leathers help cover the modest costs of keeping the group going and help to raise awareness about the work they do.

Not all picks are like this. A few of the groups come together each year to pick apples at Fryent Country Park in the north of the city, close to Wembley stadium. Composed of various patches of land, including landscaped gardens and remnants of hay meadows and common fields, the main road that bisects the park is lined with apple trees. On my first visit, there was plenty to pick, although the sloped roadside did not make the task easy. The apples were destined for a local "Apple Day", where they would form part of a demonstration of juicing.

One picker commented on how others (specifically "Eastern Europeans" – see chapter 4 for discussion of this rhetoric) had got there before us, but there was nevertheless plenty of fruit available. In order to pick here at any scale, as we had intended, you would have to make a dedicated visit, given the site's geography. At the second time of visiting, the crop was poor and any extant and usable apples had already gone. Instead, we forayed further around the park, stopping occasionally to collect what fruit there was and to discuss the slightly more unusual potential foodstuffs, including the more obviously (crab apples, sloes) and less obvious (nettles, horseradish, burdock) food plant sources.

On another occasion, joining a pick for cherry plums out on the marshes with another group, we took a quite different approach. The destination of the fruit was less predetermined and structured, and was instead a matter of seizing the opportunity of free food when it and the time was ripe. I arrived in the midst of torrential rain, which had not put off most of the group, who were nevertheless assembled in the car park by the main road. The organisers had a spot in mind and we soon reached it and its assorted colours of cherry plum gleaming from the branches lining the path in the gloom. Again, we also had picking poles at our disposal for the harder to reach branches. As we each occupied ourselves with the immediacy of the task of negotiating bushes and spiked branches, I appeared to be the only one concerned with the idea of holding up long shafts of metal in the throes of a thunderstorm. In this unconstrained setting, with a large number of trees and a glut of fruit, the amount of possible food exceeded our imaginations and capacity to collect it. Picking fruit can be a peculiarly engrossing activity – one which can both enliven and calm the mind. On this occasion and others, I encountered in myself a curiously unsettling feeling of discomfort or incompletion at leaving anything edible on the branch of the trees in question, despite my rational understanding that it was neither practical nor desirable to take everything. The volume of fruit we had already collected exceeded the volume of our containers, meaning the more we took, the increasingly marginal its benefit. I noted this affective urge—not to leave anything behind—in others too, most notably those who were new to it or relatively inexperienced. More experienced pickers had perhaps learned to control or channel this particular affect, better understanding how the fruit collected was only useful and useable within certain constraints and economies. Whether this affective response was something evolutionarily acquired, a cultural preoccupation or a result of the particular conditions on the day was not altogether clear. Where traditional foraging strategies might mean memorising landscapes for sites where certain foods grow well, so too the organisers of urban harvesting networks keep inventory of the places and quantities from years past, and record trees and spaces for future picking.

Figure 2.2: Apple harvesting in Queens Park. Source: photo by author (2017). Various community fruit harvesting networks function across the city, collecting surplus fruit in gardens, streets and parks.

Urban fruit harvesting can be unpredictable. Urban ecologies can make for uneven yields, both due to growing conditions and the variable propensity of people to get in touch to have their fruit harvested. If the concern were *only* avoiding wasted food, this would not be such a problem, but as these groups and networks have become more established and their functions expand, an absence of fruit can represent a particular challenge. Regular annual events, stalls and fares (including "Apple Days", mentioned above), require certain quantities of fruit and produce to make them worthwhile and effective. On occasion, this has meant the groups being forced to purvey fruit from outside of London to meet this demand, thereby reconfiguring the relationship and idea of gleaning what would otherwise "go to waste".

Although cities are often imagined and discussed as functional concentrations of capital and labour, spurring economic efficiency through aggregation and proximity, when imagining the food-producing qualities of such a landscape, the picture becomes somewhat less clear. Testament to this uncertainty is that, despite its apparently edible abundance, only a handful of companies are actively looking to make use of the city's fruit and other foodstuffs at a significant and commercially viable scale. I spoke with at least one gleaner utilising excess fruit from allotments, orchards and green spaces to produce and sell preserves at a scale that supports her livelihood. Several individuals pick for others, often supplying locally at a relatively small scale, ingredients such as herbs, flowers and fruits for breweries, tea-makers and distilleries. A couple of enterprises have looked to utilise excess fruit from London's gardens and green spaces. Ed and his partner Robyn began Square Root Soda in their kitchen and as a result of sourcing fruit and other botanicals from parks and communal spaces around London. What began as a hobby grew into a successful business but, as he explained, when they began requiring ingredients at a greater scale and assured quality, urban foraging was no longer sufficient in itself. They do continue to source botanicals for flavour and interest from local sites. Although it may not be surprising that the difficult spaces of a city make it challenging to source at scale, it also shows how urban nature offers opportunity for experimentation and demonstrating possibilities of food, without necessarily meeting calorific or commercial demands. The Orchard Project, itself a charity dedicated to the "creation, restoration and celebration of community orchards"[42], has developed and sold its Local Fox Cider and apple juice since 2016 to help fund and promote its work. In order to maintain the programme, and partly funded by Heritage Lottery money, the Orchard Project ran a crowdfunding campaign at the end of 2018, noting how "every year, hundreds of tonnes

[42]The Orchard Project (n.d.). 'About Us', *The Orchard Project Website* [Online]. Available: https://www.theorchardproject.org.uk/about-us/. Accessed: 01 July 2019.

of apples are left to rot across London's parks and gardens"[43]. Hawkes, a commercial craft cider producer founded in London in 2013, has similarly looked to source apples from London's green spaces. It runs an "apple donation" scheme, whereby a "donor" receives a bottle of cider in exchange for every 3kg of apples provided. The company has looked to make use of the various fruit harvesting networks active across the city as a source of ingredients, returning produce and donations in-kind to their activities. Some pickers noted that the donations the groups received amounted to a fraction of the labour and produce they provided. Hawkes also run picks of their own, including an annual collection of apples in the orchard of the Bethlem Royal Hospital in Bromley[44]. Of those joining the pick in 2016, a small number were patients who worked in the hospital's walled gardens, but most were volunteers from outside, intrigued by a novel and interesting experience in which to participate. While sandwiches and drinks were provided, the need for unpaid labour and donated produce testifies to the small profit margins and logistical challenges of trying to make use of a city's left fruit. Three tonnes of apples were procured from the hospital grounds that day but very few sites in London provide such a readily available and efficiently collectable yield (dozens of trees in one location). Cities constitute complex, "mosaic-like" landscapes – highly differentiated land uses, legal regimes, and ecological conditions in close proximity. Extensively developed infrastructure for bringing people and things into the city also create barriers across which people and materials may not be able to penetrate. High land values and logistical costs present significant challenges to fruit harvesting groups for storing and distributing collected fruit, while the labour-intensive nature of the collection and the often awkward nature of the spaces in which it takes place works against efficiency and economies of scale.

For tree owners, it is not *only* that fruit is wasted in their gardens but also that it occurs in a city in which others want for adequate calories and nutrition. Unlike many such "global" cities, the spatial ordering of London means that even the most affluent areas are to some degree proximate to areas of socio-economic deprivation. The moral compunction and urgency to "deal with" such wasted potential food is partly refined by such proximity and imminence at a local, human scale. We might understand this through what Harvey (1995) calls "militant particularism", which "presupposes a local, lived entry point that opens out onto a broader terrain of struggle against the capitalist social order" (Stehlin & Tarr, 2017:1333). Indeed, the pre-eminence of the "local" can generate something of a "scalar

[43] The Orchard Project, (2018). 'Save The Orchard Project Community Hub Cider Project', *Crowdfunder.* Available: https://www.crowdfunder.co.uk/localfox. Accessed: 01 July 2019

[44] As noted in chapter 5, the hospital has occupied several locations and was the origin of the infamous name "Bedlam".

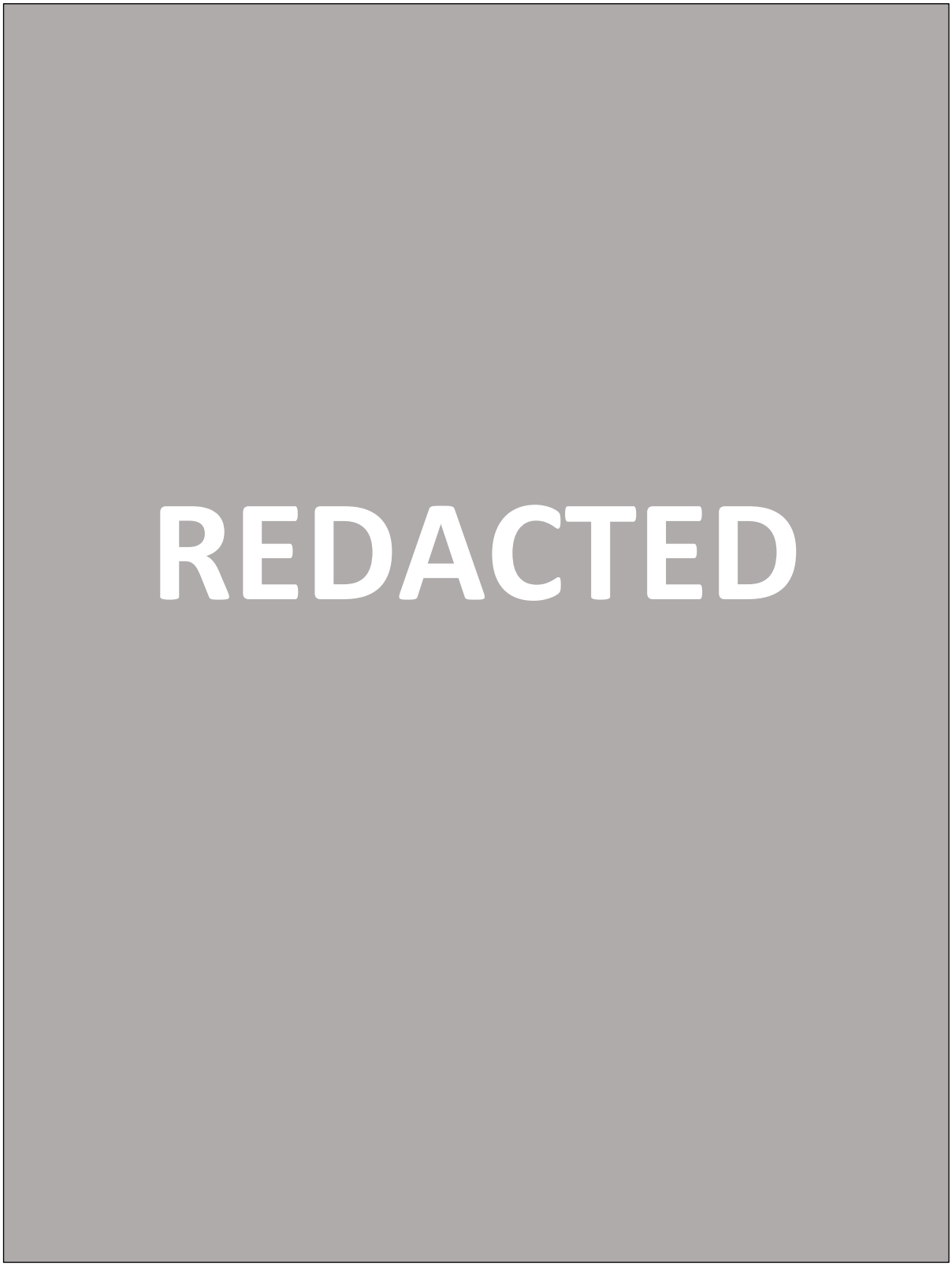

Figure 2.3: View from Square Root Drinks, Railway Arches, Hackney. Source: photo by author (2016). Various companies are making use of wild and foraged ingredients as part of the new food economy in London.

mismatch" between sites of action and the nature of urban problems in question (Stehlin & Tarr, 2017). The apparent availability of fruit in local neighbourhoods, alongside patterns and visibility of hunger, generates particular forms of ethical concern. As Morgan (2010) explains, ethical urban foodscapes are caught up in complex notions of localism and globalism, from which we cannot fully extract the forms of and motivations for harvesting and repurposing urban fruit. "Making a difference" and pushing back against an unsustainable food system are part of these logics but require further work if they are to be "fashioned into a coherent and progressive narrative of sustainable development" (Morgan, 2010:1865). The fact that these practices and their impacts *are* primarily local, imminent and embodied need not detract from their immediate usefulness – both as a performative opening for enacting wider change and in demonstrating some of the ontological blurriness of food.

There are quite particular reasons why it is fruit that garners so much attention in these networks. Firstly, apples and pears, which make up the majority of fruits collected are not only easily identifiable, botanically speaking, but easily identifiable *as food*. They are products commonly grown within the mainstream food system and are frequently encountered in designated "food spaces", such as supermarkets, cafes and restaurants. They are also widely eaten, making for one fewer barrier to their use by different individuals or organisations. They are also flexible, meaning they can be used in a variety of dishes and cooking processes, as well as generally being edible and enjoyable in raw form. Notwithstanding their sugar content, they are also perceived as a healthy food, meaning their place in alternative food networks aligns with other values and objectives. Importantly, while their collection, storage and distribution can be physically demanding work, the growth of fruit trees concentrates a significant proportion of calories and nutrients into a relatively small space, in comparison to more dispersed plants such as herbaceous greens and flowers. The fruits themselves are large and visible, meaning they are more likely to be noticed in streets, reaching over walls or in parks, and identified as a potential source of food (and waste). For all these reasons, fruit trees are more likely to be enrolled into networks of concern centred on food and waste.

2.5 The *unattended* and the *unintended*: the unscripted meanings of urban plants[45]

Regimes of concern over food waste are far less frequently extended to other edible plant species growing wildly and widely—weeds, such as horseradish, rocket or fennel—across the various spaces of the city, including private gardens, parks and wasteland. Their

[45] "Exaptation", borrowed from evolutionary biology and meaning to make use of for a purpose other than its original intention, is a potentially useful term here.

categorisation as potential "food" and the question of its wastage therefore is clearly not dependent *only* on their edibleness, or the potential loss of their calorific and nutritional content, but also their spatial and social context. For example, the vast quantities of blackberries lining the city's railway tracks are no doubt edible, nutritious and close by but largely inaccessible. One gleaner regaled me with the story of her parents' annual blackberry picking trip. Whereupon arriving at a section of underground track[46] near to their house, they would make use of a ladder and lack of surveillance to scale the fence and collect the largest berries they could find, undisturbed by passers-by or other pickers. Such a picture is an unlikely occurrence today, where the risk—legal or physical—of entering a railway track is likely too great for the reward of blackberries. Interestingly, one fruit picker and preserver explained, while she was indeed motivated by the problem of food waste, she considered fallen fruit in parks, nature reserves or other open spaces useful but "not waste as such". Waste to her occurred within the socio-spatial bounds of domesticity and cultivation.

As Franklin Ginn (2016) has explored, the idea of the "wild" need not (nor should not) be constrained within dualistic thinking of nature-culture or consigned to a wilderness or "distant other", set apart from spaces of human dwelling. For him, the suburban gardens of London—the "domestic wild"—provide a conduit for exploring questions of memory, belonging and more-than-human entanglements of care and death. As he explains, the domestic garden is less a site of human domination (of a parcel) of nature, and more a series of ongoing, complex, and mutually constitutive moments between people, plants and other animals. The garden and its subjects often behave unexpectedly, building on and generating a host of potentialities and possibilities, or as he describes "a process of mutually beneficial interkingdom exchange" (Ginn, 2016:6). The image presented above, of a garden producing an excess of fruit appears to have resonance precisely because of a domestic garden's layers of memory, regimes of responsibility and care, and the powerful imprint of private property relations. Ginn's work speaks to the fragile temporal conditions for domestic fruit trees[47]—theirs and their owners' life courses—but also how "care, curiosity and concern" enacted through gardening, "exist alongside human-directed violence and death" (Ginn, 2016:14). Such regimes of care and violence are not limited to the boundaries of the domestic garden but extend to other spaces of the city and the ways in which life is managed or managed out of human-dominated environments. The spatial ordering of cities with regards to—in the case of foraging—vegetal life feeds into the question of why some plants are understood as food, while others are ignored, maligned or simply overlooked. Urban foraging is often undertaken

[46] While called "The Underground", the majority of London's metro system is open-air.
[47] One repeated refrain encountered during the field work concerned the idea that fruit, while symbolic and generative of life, is also a tree's response to damage and disease.

in and through spaces that defy easy categorisation, such as wastelands, commons and spaces of transition. Even where spaces appear fixed in definition and meaning, the forms of mobility and transgression marking out foraging practices undermine parsimonious or stable readings of the multifarious spaces in which they are conducted.

It is at this point worth considering what Michael Carolan (2013) has termed the "relational turn" within agro-food studies and the questions this has brought regarding the ontological basis of food. For the last fifteen years or more, "new materialist" accounts—from which Ginn (2016) draws some inspiration—have been grappling with the seemingly troublesome status and matter of food. Part of this turn responds to the call for "a new analytical engagement with the materiality of nature; that is, as an ontologically real and active, lively presence" (Goodman, 2000:183). For geographers drawing on this school of thought, *space* plays a key role in shaping what we understand to be food (categorically), and what we understand food to be (conceptually). Atchison et al. (2010) interrogate the multiplicity of wheat as it moves through nodes, spaces and processes of industrial food production systems. Wheat, they argue, demonstrates a particular flexibility, whereby it can be both visible and invisible, a symbolic national staple, a poison to those suffering from coeliac disease, and an extremely useful industrial chemical product. In exploring the "dynamic aspects of its spatiality" (Atchison et al., 2010:245), they note how when understood as food (or poison), the identity of wheat is fixed and visible, while as industrial substance, it is ubiquitous and hidden. Their valuable contributions appreciate how food—its status and meaning—is contingent on the varied spatial and institutional geographies through which plant matter passes. As they also note, the relative invisibility of wheat makes it difficult to "follow the thing" (Cook, 2004; Cook et al., 2006), a research orientation in food studies seeking to situate the researcher in the spaces through which a foodstuff finds itself and to take better account of the material qualities of the "thing" in question. This approach focuses on the mobility of food commodities through different geographical spaces and politics. The concern with regards urban foraging is not so much the mobility of plants and foodstuffs per se (interesting as that may be) but the mobility of people and meaning through the urban spaces in which plants find themselves.

A notable feature of new urban "food-ways" is the manner in which urban landscapes are being redrawn, with emerging community food spaces providing multiple functions (growing, processing, sharing, consuming, disposing, learning), as distinct from a spatially and functional disaggregated supply chain (see Farrer, 2017). However, we might well rethink how food is *produced* not only in terms of its material transformation—undertaken and directed by humans—but in terms of its relational *becoming*, and avoid the lingering

"metaphysical spirit of linearity" (Carolan, 2013:423). Emma Roe (2006) has directly addressed the relational materialism of *things becoming food*. For her this is best understood through the dual concepts of "intercorporeality" and "affordance". *Intercorporeality* involves the sensory recognition and merging of bodies, human and non-human, through the act of eating; an acceptance of the inherently multiple nature of life. Her empirical description of the embodied experience of a sushi-making performance demonstrates how eating, *becoming food*, is a fundamentally contingent event, one which sees raw fish rendered edible for some and inedible for others. While Roe conceives eating as the "definitive meaning-making event" (Roe, 2006:105), it is only the end point of a host of interconnected material and psychological processes that have rendered something "food". Rather than an objective material quality, "edibility is a process, something that is performed, something enacted, and not something that necessarily demands rational, logical reasoning" (Roe, 2006:112). The idea of "affordances" draws on the work of environmental psychologist James Gibson (2014 [1979]) and refers to the potential actions and engagements that the varied material qualities of an environment (both objects and their surroundings) enable an animate being to perform. As such, "affordances are detected through ecological information or, in other words, information which is constructed through an immediate relation between the perceiver and the perceived" (Roe, 2006:113).

Although relational in orientation, there is the danger that a focus on individual bodies and embodied experiences obscure how the question of edibility, of what gets categorised and recognised as food, is invariably a question of politics (Rohel, 2017). Urban foraging itself disrupts the logics of the food system, whereby consumption and production, spatially and temporally become immediate and intertwined. In so doing, it undermines the idea of eating as the "definitive meaning-making event" and, as I have argued elsewhere, the act of picking or gathering adds another qualitatively and affectively significant moment (Nyman, 2019), arguably endowing plants and the food with the "quality of gatheredness" that Mabey (2006:6) has offhandedly suggested. Indeed, in the case of food waste and the degree that it motivates affective, moral and economic responses, eating is clearly *not* the moment of definitive meaning-making. It appears rather more a question of perceived *potential*, rendered through the varied conditions in which food is imagined or encountered. As explored in more detail in the following chapter, urban plants *afford* certain engagements, depending on their immediate and wider environments. However, cities are particularly complex landscapes to navigate spatially and semiotically, and the affordances that plants present are not always clear. Where deliberately planted or cultivated, or where plants fulfil a specific function, they may be more easily "read". However, the *unattended, unintended* and often *unexpected* plants

that occupy the focus of a foraging gaze are also those least "scripted" in this regard; sometimes weedy, sometimes unpredictable, and open to a range of formal and informal responses. When considering the *affordances* of plants in cities, it is worth highlighting three interrelated components. Firstly, the materiality of the plants themselves – their botany and morphology, their phytochemical composition, their aesthetic qualities and the health of the plants. Secondly, the environment or spaces in which plants are encountered, including for example the land use history, the soil composition, the availability of light and water, the space's legal status and that of the surrounding area. Finally, there are "the not-quite materialities of perception, belief, memory, meaning." (Bennett, 2007:140), as well as the wider scientific, economic and cultural meanings attached to particular species.

The example of Japanese knotweed (*Reynoutria japonica*) is an exemplar of the contingent qualities that underpin how and what is framed as food, as well as the role urban space has in disrupting these. I first encountered the Paddock on my way from a botany meeting at (what would soon become) Walthamstow Wetlands. An isolated triangular patch, surrounded on two sides by water courses of the River Lea navigation and the busy Ferry Lane on the third, it is easily missed. While nominally a "community nature park", the only visible signs of use were the remnants of a camp and a temporary notice warning about informal occupation of the site. An interpretation board stood close to the entrance detailing the layout and history of the site, provided by Haringey Council, while the interior was dominated by elder (*Sambucus spp.*), willow (*Salix spp.*) and blackberry (*Rubus spp.*). In addition, while the space had clearly some form of management regime, large, established stands of Japanese knotweed occupied various sections, including areas overlooking the SSSI designated wetlands a few metres way.

The name *Reynoutria japonica* actually covers various botanical taxa but has come to be seen as "something of an invasive species *par excellence* in the United Kingdom" (Nyman, 2019:175). It was introduced to Britain in the nineteenth century for its:

> Great vigour, its combination of ornamental and medicinal use, its value in protecting young plantations from wind and sun, its edible young stems and leaves and a rhizome highly valued in Japanese and Chinese medicine (Bailey and Conolly, 2000:94).

It soon spread and became infamous for its rapid, rhizomatic growth and tendency to crowd out other species. Under the Wildlife and Countryside Act (1981) and the Environmental Protection Act (1990), it is illegal to cause the spread of Japanese knotweed. It also developed a nefarious reputation for undermining the structural integrity of built structures, reducing the value of property, increasing insurance costs and affecting mortgage lending. Despite its notoriety, a recent study found it not to cause significant structural damage to

buildings and no more so than species not subject to the same legal status or level of concern (Fennell et al., 2018).

The formal status of knotweed as a food crop is somewhat ambiguous but it is nevertheless an established ingredient in various contexts. Several published foragers (e.g. Brill, 2010, Nelson, 2015) suggest its collection and recipes for its use, while in terms of urban foraging, McLain et al. (2014:235) list it alongside various weeds, "targeted by foragers of diverse backgrounds, seeking either familiar foods from 'home' or interesting ingredients for personal meals". So too Poe et al. (2014:912) examine examples of where knotweed is collected in Seattle, considered as a form of environmental stewardship or species control. Although the knotweed at the Paddock is clearly not harvested as a food source, others in the city have embraced the plant as an ingredient and provocation about the idea of nativity and invasiveness. Company Drinks, a community interest company based in Barking in East London, have been harvesting knotweed for the last few years and using it as an ingredient in one of their signature drinks. According to Kathrin, the organisation's founder, the idea of producing a knotweed soda arose from a collaboration with a Slovenian artist, Gaja Mežnarić Osole, who introduced the group to the complex politics, ecology and history of the plant in Europe, as well as its legal status. Knotweed itself is in the *Polygonaceae* family and shares characteristics with rhubarb (*Rheum spp.*) and sorrels (*Rumex spp.*), notably its oxalic acid, which gives it a tart, citrus flavour.

With these possibilities in mind, the group—assisted by rangers—ventured out into Eastbrookend, local nature space, with the aim of harvesting knotweed in mind. Kathrin explained how on that first trip, the group consisted of both older locals and a younger crowd who had travelled from elsewhere in the city, keen to sample a new flavour. Park rangers were able to show the group the appropriate spaces where to collect, correct harvesting techniques and how to avoid inadvertently spreading the plant (see Figure 2.4). This collaboration with park management also assures the legality of the group's activities. Once familiar with knotweed's morphology and materiality, pickers can collect without park supervision and the group returns each year to collect material for its annual batch of soda. Those who have gone back each year tend to be those residents who regularly attend Company events and activities. The biggest potential health hazard for consuming knotweed is not the plant itself (although there can be health consequences of an excess of oxalic acid) but previous glyphosate herbicide usage for managing its growth and spread, the presence of which may not be obvious upon first encounter (see also McLain et al., 2014). The negative ecological status of the plant as "invasive" and "non-native" appear to have crossed scientific boundaries and inflected its cultural status. Despite assurances as to its safety and edibleness,

Figure 2.4: Japanese Knotweed being collected in Eastbrookend Country Park by Company Drinks volunteer Cam Jarvis. Source: Kathrin Bohm, Company Drinks (2017)

many are still reluctant to try the knotweed soda. Japanese knotweed is in many ways as distinctive and identifiable as apples and pears but the former is commonly understood as a threat, while the latter is understood as a source of food. The morphology of knotweed, growing underground, even while surface growth is destroyed lends it a certain uncanny quality, undermining the control humans often feel able to exert over domestic spaces. Yet knotweed, despite its invasive status, is a markedly urban plant, similar to the Tree of Heaven, *Ailanthus altissima* (see Patrick, 2013). It arrived in London because of an imperial fascination with "exotic" plants and through networks of horticultural trade. It spreads along railway embankments and through transit in soil waste from urban development. The very conditions of urban space— density, diversity and proximity—enable its flourishing, as well as hopes of eradicating its presence.

None of this is to make light of the damage that invasive species can inflict on habitats or other species. It is also not to suggest that harvesting Japanese knotweed for food in London at scale is a desirable or viable project. What it does point towards is that a plant's "edibleness"—that is to say its material biochemical mutability with human digestive systems—is really only a fraction of what actually renders plant matter *food*. The presence of a variety of edible plants across London's landscapes but the enrolment of only a selection into human diets and economies is testament to this fact and undermines—or at least renders ambivalent—the notion of a "productive" or "edible" city. Such visions of the city are intrinsically partial and the productiveness of urban spaces may not align conveniently with human design or utility. As Del Tredici (2010) among others has pointed out, the often novel, emergent and recombinant aspects of urban ecologies undermine overdetermined understandings of "invasiveness" or "non-native species" and the appropriate place and management of wild urban plants.

2.6 Conclusions and the agency of plants

The preceding discussion serves to underline how, despite the resurgent status of urban nature more generally, and in London in particular, visions of the city as a singular and coherent socio-ecological assemblage are often undermined by the uneven and messy reality of that nature. Forms of urban governance or branding that purport to manage urban ecologies often conceal their reliance on processes and materialities far beyond their control. Urban foraging offers a way into the plant ecologies that take place behind the walls of domestic gardens or in the margins of parks and streets. As an activity it relies on some relinquishment of the idea of human agency and control, depending instead on the liveliness and possibilities engendered by plants that exist and thrive both because and in spite of design or intention. By its definitional concern with the *uncultivated, unattended* and *unintended* plants of a city,

urban foraging opens up this world in ways that many imaginaries of a city's nature do not. Just as the yields of fruit trees are unpredictable, so too is the presence of wild plants, invited and uninvited. While foraging might intuitively sit alongside framings of London as a "food-producing" or "edible" landscape, it also acknowledges the agencies of non-humans in such productiveness and unsettles the received notions of "food". Urban landscapes do not offer smooth surfaces upon which to pin new forms of a food economy.

Beginning to think with the nature and affordances of plants—their materiality, environments and wider meanings—opens up new ways of perceiving the city. In a different context, Simone (2016) has referred to these as "vantage points" through which people negotiate the spaces and politics of the city; the forms of hustle and adaptation required to get by and get on (Thieme, 2017). This need not only be understood in terms of the informal economy (which certainly connects to urban foraging) but also how thinking with and from the perspective of the plants that also make up the life of a city can produce radically different visions. Rather than props or conduits for human meaning, Michael Marder (2013) asks us to begin to imagine the possibilities of plant subjectivities. If algorithmic governance of cities is pulling "liberal subjectivity" in one direction (Matzner, 2019), then plant subjectivity might take it in a quite different direction altogether. Plants already shape cities in more or less obvious ways, affecting its material composition and function, and its semiotics. As cities are increasingly posited as spaces of nature or spaces of food production, the affordances and potential engagements between people and plants will become more significant.

3. Urban walking, knowledge and botanical encounter

3.1 Introduction

Walking is currently enjoying a moment of widespread prestige. As well as method and area of study in its own right, walking has been increasingly championed by nature writers and broadcasters, campaigners aiming to protect rights of way, and public health advocates, with walks in nature now being prescribed by doctors as a means to combat a range of contemporary health concerns. It has garnered interest across a range of academic disciplines from anthropology, geography and urban studies to social history, ecology, epidemiology, and literary studies. More than just another form of mobility or an observable phenomenon practised by research subjects, walking is increasingly understood as a mode of critical enquiry; both performative and a means to interrogate landscapes (Lorimer, 2011:19). It bears distinctive epistemic implications as a mode of knowledge and knowing, and as a political re-articulation of place. Walking is itself political. Who gets to walk, where, and how, are key questions for those concerned with social justice and cultural belonging in the city, affecting both the material and imagined horizons for those that occupy urban spaces. As the previous chapter demonstrated, London is enmeshed in complex landscapes, ones which both enable and inhibit movement and circulation. This is a prescient concern for those without the physical ability to traverse such ground and those excluded socially or politically. The inspiration for the theatre production *Black Men Walking* by the rapper Testament (also known as Andy Brooks) was the establishment of a walking group in Sheffield 2004 aimed at encouraging black men in the city to take up walking in the city's surrounding countryside (Minamore, 2018). The group addresses the multiple physical, mental and social health benefits of walking, as well as troubling whiteness of the English rural and the cultural exclusion of non-white bodies. The Sheffield Environment Movement, which now organises these walks, includes foraging for wild plants as a mechanism through which to engage people with nature, their own cultural heritage, and traditional plant uses in England (SEM, 2016).

As chapter 5 interrogates further, different forms of walking and perambulation formed important traditions in the English village, including beating the bounds of the common in order to reaffirm the rights of parishioners and to ward off encroachment of lords and potential enclosers. This was not merely symbolic - continuous use, or prescription, bore particular significance in common law and the rights of access, or easements, continue to do so today under English law. Campaigning around the Right to Roam (Countryside & Rights of Way Act, 2000) have proven successful in efforts to ensure public access to land and moderate the otherwise unfettered power of landowners, while clauses in the legislation

require the registration of pre-1949 rights of way before 2026. As the later chapter examines, the history of commons preservation in London centred a great deal on access and movement through spaces, rather than practices of subsistence and dwelling. While urban landscapes may often be technically be "open", their use for activities such as picking and foraging of plants is often prohibited. Treating "walking" as a singular phenomenon or reducing it to a question of access is a mistake.

Therefore, the aim of this chapter is to unpack some of the interconnected strands of walking, urban foraging, forms of knowledge, and modes of urban botanical encounter. It begins with a discussion of work surrounding what we might call "critical walking", with particular reference to the work of anthropologists such as Tim Ingold and Anna Tsing and to the insight offered by urban and human geographers, such as Tim Edensor and Leslie Head, interested in how we encounter the textures of the urban and engage with the bodies of plants. Ingold's various writings on how knowledge is not merely acquired through *moving* and *doing* but actively constituted through them. *Moving*, *doing* and *knowing* are profoundly implicated in "urban foraging", yet the term is wholly inadequate and broad to capture the varied phenomenological modalities it contains. The following section therefore draws on etymology, observation and discussion with participants and offers some definitional framing of the varied and distinctive practices captured under the heading "foraging". Social actors are not beholden to the archaic meanings of words and so the aim is not to impose or restrict how people should use terms but instead to pull out details and meanings that might otherwise be overlooked. This matters because *how* people pick has implications for ecology and availability of potential foodstuffs. It helps us understand what "sustainable" means in this context and what could or should be encouraged. The subsequent section therefore builds on foraging etymology to present a modest schema of urban foraging practices observed and experienced in the field. This combines the linguistic meaning, spaces, motivations and bodies involved. The different forms of "plant walking" captured within "urban foraging" constitute quite particular and peculiar articulations of knowledge (about plants, about place and about the world around us). They employ varied registers and make certain claims about the world, melding scientific, sensorial and cultural understanding. This is a form of knowledge *enacted* or *performed* both immediately and outside delineated temporal and spatial bounds. It is rather more a phenomenological concern than one for theory. The final section of the chapter compares the experience and meanings of urban foraging with that of the "urban botanical transect" as another distinctive type of knowledge production and explication. As established in the previous chapter, by their nature many urban plants are not inscribed with meaning prior to their discovery or encounter. So too the distinctive forms of

plant walking in foraging and botanical survey, while providing unorthodox reading of and movement through urban landscapes, are dissimilar with regards scientific, cultural and use values. This final section concludes with some thoughts on what the phenomenon of "plant blindness" might reveal about foraging and the status of nature in cities.

3.2 Walking and plants

For several reasons and in several ways, *walking* as a praxis has reached a zenith in recent years. It is now considered not only a means of mobility, hobby or prosaic activity, but a health intervention, a means of political claim-making, and a non-representational method for interrogating landscape and place. Tim Ingold has often been cited as a central figure in this field and is particularly relevant for the purposes of this study because of his more classically anthropological interest in foraging behaviours. Part of his earlier work refuted the paradoxical tendencies of "optimal foraging theory", which sees in hunter-gatherers utility-maximising, rational economic agents ("economic man") *and* those bound to a neo-Darwinian evolutionary vision of provisioning behaviour "passed down", either through genetics or received through culturally transmitted inheritance (Ingold, 1996). While the Cree of northern Ontario may seem geographically and culturally far from London, the idea that "hunters-gatherers, or foragers, live in environments characterised by diverse and heterogeneously distributed resources" (Winterhalder, 1981:66) does not per se distinguish between such landscapes. However, the capacity for hunter-gatherers to forage "optimally" presupposes landscapes that are largely open and traversable, unlike the fractured, mosaic qualities of urban landscapes that are markedly less rationalised, or rationalisable. As the previous chapter suggests, cities both realise efficiencies through density and proximity but, in the process, produce spatial and economic disparity, giving rise to irrationalities and injustices, such as urban food deserts (Wrigley, 2002; McLintock, 2008). As the next chapter will explore further, while "foraging culture" is a term often invoked as both explanation and justification of foraging in a heterogeneous city such as London. Ingold points out, "it makes no sense to speak of 'culture' as an independent body of context-free knowledge, that is available for transmission prior to the situations of its application" (Ingold, 1996:40). His fundamental point is that skills such as food plant gathering are not imparted through genes, rules and representations or didactic methods – nor is provisioning exercised through conscious, rational utility maximisation. They are instead "developmentally embodied and environmentally attuned capacities of movement and perception" (Ingold, 1996:38), learned not *through* cognitive structures but forming intrinsic *parts of them*.

Movement, and different types of walking, are inextricable from foraging practices. As the next section outlines, foraging—and its associated terms—is a form of movement itself,

centring upon the human body as the central agent of provisioning. This is rather than, say, relying on the movements of other people and things to bring food from somewhere else as is most frequently understood to constitute modern, urbanised food systems. Walking is, as Ingold and Vergunst explain, a form of knowledge in itself:

> Walking comprises a suite of bodily performances that include observing, monitoring, remembering, listening, touching, crouching and climbing. And it is through these performances, *along the* way, that their knowledge is forged…the movement of walking is itself a way of knowing (Ingold & Vergunst, 2008:5)

Given that the landscape, the context, is integral to what and how we might *know* through movement and skill, it is important to ask what and how we might know through foraging practices in a markedly urban environment. What "affordances" (Gibson, 2014 [1979]; Roe, 2006) does a city like London offer those moving through its landscapes for engagement with plants and searching for foodstuffs? This matters, perhaps more so in a city, because the lines our movements trace through urban landscapes are intimately and unavoidably entangled in the lines of others, human and non-human; cities are spaces which require and impose forms of coexistence that may or may not tolerate certain forms of mobility. In his more recent, slightly more abstract and theoretical turn, Ingold (2015) has taken on a Deleuzian interest in *lines* and the shapes and topologies of walking, including the meanings of *ground* and *surface*, confronting the metaphysical, as well as the material-cultural. He explains, "for inhabitants walk; they thread their lines through the world rather than across its outer surface. And their knowledge…is not built up but grows along the paths they tread" (Ingold, 2015:47).

The role of the path in compiling knowledge through embodied experience is a theme also entrenched in the fungal work of Anna Tsing. This work spans the multiple scales of the human body, landscape and scattered pieces of global commodity chains (but rests on a marked interrogation of "scalability" (Tsing, 2015:42)). "Walking is the speed of bodily pleasure and contemplation; it is also just the speed to look for mushrooms" she says (Tsing, 2012:141). Walking, and looking, are ways to learn landscapes and, in the process, foster forms of interspecies communality:

> Many times, wandering, I have suddenly remembered every stump and hollow of the spot on which I stood—through the mushrooms I once encountered there. Conscious decision can also take me to a spot of past encounters, for the best way to find mushrooms is always to return to the places you found them before (Tsing, 2012:142).

Although, as she points out "foraging worked just this way for most of human history" (2012:142), her concerns are not in "primitive" nature or humanity but in what she terms

"third nature" – the possibilities of life despite industrial capitalism (Tsing, 2015:viii). As outlined in chapter 1, her focus is not the city and its "urban forest" but the forest *proper*—what becomes of it and what it becomes—through, after and despite its transformation. Her concern is not the peculiar textures and texts of the city, at hand or under foot, despite its increasingly concentrated presence of humanity. The possibilities *urban* foraging offers for cohabitation, care and commons in the urban realm, including the importance of Tsing's contributions, are returned to in the final chapter.

For geographers such as Tim Edensor, the city itself has provided the terrain through which to traverse landscapes of industrial ruination. As he explains (2008:128), "the anti-structure of the ruin contrasts with the supervised linearity which determines much movement through the city, and opens up a host of spaces that may never normally be traversed and occupied". Instead, ruins provide walkers with experiences that:

> …take place in a space replete with rich and unfamiliar affordances. Here I am referring to characteristics such as the textures, form, weight, consistency and state of decay of the objects in ruins, along with other redistributed matter and materials around and across which walking takes place (Edensor, 2008:132)

Such affordances disrupt the sensorial and temporal experience of movement, and undermine the linear, narrative understanding of walking. As the following sections of this chapter explores, "urban foraging" shares some substance with walking in ruins because, even where they may contain once purposeful planting, they are likely colonised by weeds and plants escaped or gone feral. As the previous chapter details, the gradations and spatial differentiation of urban landscapes produce varied "scripting" of plants – how they are viewed, engaged and used. Urban ruins and interstitiality vacate spaces of meaning, or blur them through the overlay of multiple meanings (Jorgenson & Tynecote, 2007). Although ruined, empty or abandoned do not *necessarily* produce edible plants, the plants that inhabit such spaces do so outside the designs and intents of planners and architects, in much the same way people might make informal use of them (the spaces and their plants). Neither are ruins the only spaces for spontaneous growing and informal collection of plants in cities. Foraging—or other forms of plant walking—potentially provide other means to disrupt and re-sensitise the body to the material composition of a cityscape that do not require large tracts of set-aside space to do so. While Edensor frames ruins in contrast to the overly smooth, regulated city, when our attention is refocused on botanical presence and possibility, those "smooth" and regulated textures of concrete and asphalt become rather more a hindrance and disruption to the continuity of space.

While walking has long been a technique and concern of urbanists and urban theorists, little direct attention has been paid to plant-focused walking in cities. Some studies have explored aspects of walking and encounter within designated spaces such as botanic gardens (e.g. Ward et al, 2010; Hartigan, 2015), garden centres (Hitchings, 2007), and domestic gardens (Hitchings, 2003; Bhatti et al, 2010; Ginn, 2015). Waitt et al (2009) explore how suburban walking embodies a disposition of human, plants and animals as relationally constituted. The performativity of walking, with reference to plants, can inscribe forms of territoriality, helping to order spaces of and for nature. "Plants are crucial to illustrating the complex experiential knowledge born of everyday walking a criss-cross of paths… respondents' tree-talk both ruptures and reinscribes spatial boundaries" (Waitt et al, 2009:51). As they also note, there are, "specific cultural geographies and histories to specific styles of walking—rambling, bushwalking, tramping, cruising, marching, strolling, guiding, promenading" (Waitt et al, 2009:44). The next section will attend to some of the specificities of foraging and what these mean in an urban context.

Furthermore, walking is a central concern for both "the new nature writing" (Smith, 2017) and the connected and more established field of psychogeography. According to Coverley (2018), this is a term which has lost some of its lustre over the last decade, supplanted by various derivations and hybrids. Reflecting the partial and fractured narratives of psychogeograhical work itself, its intellectual lineage connects the flâneurs of Baudelaire and Benjamin, Guy Debord and Michael de Certeau with contemporary writers such as Iain Sinclair, Peter Ackroyd and Will Self, and filmmaker Patrick Keiller's *Robinson* series. While Paris provided the context for earlier modernist walkers writing the urban experience, London has proved the "muse" for many contemporary psychogeographers. Psychogeography, with its interwoven (and sometimes mystical) rendering of the complexity of urban landscapes, interposes narratives and material geographies with displaced personal and cultural histories, infused with radical politics and nostalgia for the overlooked. There is much that can be discussed in this area and much space could be dedicated towards it. However, for the purposes of this research, it is worth noting that a number of the spaces that become empirical points of attention, including the Lea Valley (Sinclair, 2003; 2012) and Hampstead Heath (Self, 2006). Psychogeographical accounts such as these, by definition, offer only partial visions of London's landscapes – although their style and tone at times appears to suggest a degree of authority, while nature and ecology signify only a marginal concern. Previous work of course does not preclude the need for further attention. Interestingly, plants per se are not objects of concern in many psychogeographies of London – other than as background scenery.

The tension within urban walking literatures that find its value in immanent and embodied forms of knowledge—tied intimately to place and landscape—or that extends from the particular and peculiar to think about the urban experience more generally, and more abstractly. I side largely with the former. Part of this reasoning is precisely in the problematic status of the flâneur in the history of urban theory – *his* largely privileged social and intellectual position enabling chauvinistic forms of extrapolation that not only become misapplied and appropriated but, in the process, erase the experiences of women, the poor, and the racially marginalised. This is not to dismiss the possibilities that walking as method and means of inquiry offers to geographical research but to be tentative and proportionate in the claims which stem from them. The final chapters will also consider the temptation—and potential intellectual misstep—in how the urban comes to be understood through sites of experimentation or artistic intervention, and the limitations of microcosmic thinking that lacks practical means of change.

As John Wylie (2005:245) has noted:

> [W]alking is irreducibly multiple, and shared, collective or guided walking …is obviously conducted within and productive of very different resonances and relations than the solitary variety. But at the same time, solitary walking is always, necessarily, relational.

The following sections aim to add flesh to the multiple forms of walking implicated in existing and emerging urban foraging practices. For De Certeau, walking the city is in stark contrast to the visions of planners and cartographers—articulations of a certain form of power— whose object, the "panorama-city", is a "'theoretical' (that is, visual) simulacrum, in short a picture, whose condition of possibility is an oblivion and misunderstanding of practices" (De Certeau, 1988:93). For De Certeau, the practices of walking take on their own "rhetoric"; composing "turns of phrase" is comparable to that of composing routes through walking. As the following two sections will outline, movement—in the form of urban plant walking—is entangled in questions of language; walking as a register. Chapter 5 explores further the meaning of "urban commons" and, as much as the idea has and continues to be implicated in different forms of political protest and expression, it also finds quite particular meaning, resonant with De Certeau, in praxis and *getting on with* living or "poaching". There are surely politics to this as well, in as much as it resists imposed framings of the city but its possibilities are subtler and in need of uncovering.

3.3 Modes of encounter

While the chapter has so far acknowledged the diversity of subtler meanings captured under the term 'foraging', this section delves deeper into some of their nuance. The language of

foraging and its associated lexicon has been variously deployed through history and geography, carrying traces of past practice and meaning. This meaning is not merely semantic but offers glimpses at different ways of conceiving and interacting with nature. A bar scene in the Agnes Varda film *Les glaneurs et la glaneuse*[48] (2000) hints at the importance of how language depicts different expressions of the relationship between the bodies of the plant and the person. A gentleman explains, partly to Varda, partly to the viewer, that he is a "picker", that is to say he is not a "gleaner". The former is concerned with fruit on the branch, ready to be plucked from the bush or tree; the latter is concerned with that which has fallen to the ground, whether from excess harvest or windfall. In this case, Varda considers herself a gleaner, with implications of social status, the qualities of ripeness and the materiality of the dirt in which fruits are found. One might recognise the difference between the two but question its significance. Yet, *the ways we take* resemble, embody and project the varied ecologies, economies and social relations in which such practices are enmeshed. This section is concerned with how the language of "foraging" is framed by and helps frame these broader relationships, and how the differences between terms depict different ways of moving, knowing and using plants. Layered over this is the urban context of the enquiry, and the disruptive influence of urban space on how people and plants may move across city landscapes. Varda's point of reference is the realism of Millet's *Les Glaneurs* (1857) (Figure 3.1), exposing the strains on the (female) body of grinding rural poverty, the inequity of agrarian life, and peasant dependence on traditional rights of common. While the scene can be connected to forces of urbanisation, the expansive and uninterrupted (we might say *modernised*) rural landscape stands in stark contrast to the spaces a city offers up for collecting foods.

All of the terms below are primarily English but that is not to ignore or dismiss out of hand the varied ways in which languages and cultures represent and reproduce modes of subsistence and engagement with material nature. There are valuable etymological and linguistic relationships between words, and across cultural contexts, but to capture the full extent and nuance across languages is beyond the scope here. It is more pertinent to demonstrate that, even within the confines of foraging lexicon in English, there are meaningful distinctions to be made. Some mention and points of contrast are made with terminology in other languages. As with any informal cultural practice, the meanings of descriptive terms are neither universal nor fixed. For many of those encountered during the

[48] *The Gleaners and I*

Figure 3.1: *Des Glaneuses/The Gleaners*, J.F. Millet (1857). Musée d'Orsay, Paris. Source: Google Arts & Culture.

research, the different uses of terms was not altogether imminent. Furthermore, those engaged in these practices may not label them as such.

a. Foraging

The etymology of *foraging* is closely linked both to mobility and food. The noun *forage* in English continues to refer to foodstuffs fed to domesticated animals, particularly livestock and horses, and originates in the Old French *forrage,* derived from *fuerre,* meaning straw or hay. It may have a connection to the Old English *fodor,* and other Germanic origins referring to 'food', which also give rise to the close modern synonym of *fodder*. The verb *to forage* appears to arise from the Middles French *fourrager*, as well as the nominal form. As a verb in particular, it has a strong military connotation, referring to excursions in search of provisions and gives rise to the term *foray*. As a verb, it can be both transitive and intransitive. In the former, it can be enacted upon areas or countries, on peoples, or on the crops themselves, often with a destructive or violent air, and is associated with plundering and pillaging. As an intransitive verb (which more resembles the contemporary usage of the more benign *foray*) it might suggest a less extractive or damaging means of passing through a landscape. *Foray* is a term that has been used in London to describe guided walks focused on the mycological and ecological, rather than culinary, value of mushrooms and fungi. The French *fourrager* can also be translated to the verb *to rummage*, expressing not only the nature and intent of movement through a landscape but also the tactile engagement involved. Such a meaning connotes at least two things; an unplanned and haphazard quality and the act of moving, unearthing or displacing in the search for something. In the field and in practice, what "counts" as foraging bends and blurs, not least because the city as a landscape for provisioning food unravels some of the clear distinction between spaces and practices. The term *foraging* in the context of its etymology suggests a degree of travel into the unknown—whether "wilderness" or "enemy territory"—or at least with an element of uncertainty. Finding such spaces within the realm of a city is a difficult proposition. One may well head out with a specific crop or plant in mind, and perhaps a sense of where in the landscape that might be found, but no assuredness that it will be found or in what state. We must also point out that *foraging* is a term used across disciplines, including anthropology, ecology, and ethology, to describe both human and non-human behaviours. There is the danger that a too easy use of the term proscribes or denies the self-awareness, the agency, and the deliberate capacity of *foragers* to understand and shape themselves, their actions and the environments, and should be born with caution.

b. Gathering

Gathering, from the verb *to gather* has Germanic origins, notably the Old English *gad(e)rian* meaning to assemble or unite. In the nominal form, *gathering* can refer to the activity of assembling or collecting people, animals, wild or cultivated plants, other materials or even thoughts. It can also refer to the assembly itself of people and as such shares etymology with terms in Germanic languages connected to companionship and fellowship. For our purposes, it is most familiar in the anthropological compound 'hunter-gatherer', used to distinguish social structures based on subsistence from sources of wild plants, animals and fungi, from those based on cultivation and agriculture. This encompasses a diverse area of different means of social organisation, gathering strategies and techniques, species sought, and modes of moving through landscapes (Kelly, 2013). Unlike 'hunter-gatherer' as a descriptor of a type of society or member of such a society, this research has focused rather more on the activity of gathering itself, rather than to suggest it plays a defining role in the form and function of urban society. Yet, whether a formative part of social meaning making or an adaptive strategy (Lee & Daly, 1999), there are still implications of and for urban gathering practices with regards more classical anthropological accounts. Incidentally, in such accounts, both *hunting* and *gathering* are themselves classed as foraging behaviours. In the urban context of London, where such terms may be self-referential or bear subtler differences, *gathering* (rather than *foraging*) seems to imply a sense that plants or fungi are already available and abundant, requiring less work or disturbance in the actual act of acquisition. Indeed, if *foraging* denotes a sense of the unknown, *gathering* suggests greater certainty of what is or *should be* out there and collectable. The etymologist Anatoly Liberman (2017) has discussed the origins of the idiom *to go woolgathering* and its connotation of absent-mindedness, daydreaming, and fruitless tasks. In fact, its origins stem from the customary common right of peasants to collect the small pieces of wool left by sheep on thorns and hedges, providing a modest but useful source of fibres for textiles (Neeson, 1993). As Liberman points out, quoting E. Cobham Brewer, woolgathering was in fact a purposeful wandering but displaying a "wide and irregular range".

c. Gleaning

The verb *to glean* comes from the French 'glaner' and, as above, was a somewhat technical reference to the rural right and practice of collecting corn (or other grains) left after the main harvest. Gleaning would have taken place both in the common field and privately farmed spaces and was a more or less formal right afforded the poor across large areas of Europe, notably France. There is a distinct association with cultivation and waste, as opposed to collection from wild sources, and was an important form of subsistence for the landless and

disenfranchised poor. As per Varda's film, it may be that there are extant gleaning rights still associated with particular areas of France that have not ceased due to changes in ownership and land use. In common parlance, *to glean* can mean to acquire or make use of small pieces of something (e.g. information). *Gleaning* has somewhat re-entered the lexicon in English in relation to questions (and solutions) around food waste and has come to refer to left and waste products at all stages of food production, including uncollected fruit windfall, unclaimed agricultural produce, and food waste retrieved and repurposed from bins (*skip* or *bin diving*). Unlike the term *foraging*, *gleaning* tends to be associated with familiar, cultivated and bounded sites.

d. Picking

To pick—possibly of both Latin and Germanic origins—has a wide range of meanings and application and is a more general and widely used term than the others listed here. According to the Oxford English Dictionary, it means "to detach and take (something) from where it grows, lies, or is attached, or from that which contains it, esp. with the fingers; to pluck, gather (growing flowers, fruit, etc.)". As per the description (and distinction from *gleaning*) above, *to pick* implies the removal of part or the whole of a plant or fungus, most likely with the hands or fingers (although it could be done with an implement such as a knife, hook or pole). It can be distinguished from *gathering*, *gleaning* or collecting that which has already been detached. In the case of fruit, *picking* apples implies removal from the branch, whereas *gathering* apples implies collecting from the floor (note the subtle difference between *picking* and *picking up*). Such a distinction may seem inconsequential but can also bear out in terms of the historic legality of such provisioning, how practices are viewed by owners or managers, the equipment and exertion involved, and the ecologies and economies implicated. For example, fallen fruit may be bruised or decomposing and only useful for certain purposes (preserves and juicing), whereas *picked* fruit may be firmer, less sweet or unripe. The mode of *picking*—for example whether the whole plant is taken or only parts—frames the legality of the practice (generally speaking it is illegal to uproot a plant – see chapter 1) and the impact it might have on the health of the plant, plant community or area. The linguistics of *picking* have an added connection to food in terms of selecting and taking parts of particular or most value i.e. *picking* at the bones. It also extends to relatively immobile animal foodstuffs such as bivalves e.g. cockle *picking*.

e. Harvesting

To harvest – derived from the Old and Middle English noun 'herfest', meaning Autumn (and possible connected to Germanic, Latin or Greek meanings related to pluck or crop). Only once the terms *autumn* and *fall* had entered the English language did *harvest* come to mean

specifically the time at which crops were collected. With its association to a specific point in the year, the term has markedly temporal and seasonal connotation, and with it the sense that it can be undertaken too soon or too late. Michaelmas Day in Christendom was supposedly the last day of the harvest, which coincides with the folkloric idea that blackberries should not be picked after this feast as it is also the day upon which the devil defiles them. As with *picking*, *harvesting* can imply the acquisition of the best or most valuable parts of something (and its meaning has expanded to include the *harvesting* of cells, data, organs). It is most strongly association with cultivated areas and crops growing, and with them the activities, celebrations and rites of domestic and communal life but is also applicable to wild plants and foodstuffs. *Harvesting* from wild sources does however imply a degree of prior knowledge or familiarity with where in a landscape plants or fungi might be found, and even suggests stewardship or management of those sources.

f. Scrumping

Scrumping derives from English regional dialect and refers to the theft of fruit—most often apples—from orchards, gardens or otherwise illicitly from private property. Etymologically it is connected to the Danish *skrumpen* ('shrivelled') and the German *schrumpfen* (to 'shrink' or 'shrivel') and thus the dialectic *scrump*, referring to a withered apple and the potentially low quality or discarded nature of the fruit in question. *Scrumpy* refers to a form of high strength cider, often utilising a range of apples and natural fermentation (it is also often produced domestically). Lea (1999) identifies apple *scrumping* as a traditional practice and tolerated social crime, and which might be connected to forms of reciprocity in the rural economy. It bears a certain sympathetic connotation and is associated with less gravity than an act such as livestock theft (or "rustling"). In that regard, it bears similarity to (etymologically unconnected) words in other European languages, such as the German *mundraub* (literally, "theft from the mouth"), referring biblically to Deuteronomy 23:22-23, which says that upon entering a neighbour's vineyard, you may eat as many grapes as you can but take none with you; and when entering a neighbour's field, you may pick kernels with your hands but not use a sickle. This sense is reflected in some management of contemporary urban foraging, whereby 'personal use' (or specifically how much can be carried by hand or in a small bag) is the rule of thumb for some spaces, even where rules technically forbid or limit such extraction. The connotation of the Italian *arrangiarsi*—partially translatable as *making do, managing* or *getting by*—also resembles (or might include) *scrumping* as a form of 'acceptable' larceny as a means of survival.

3.4 Ways and knowing

Having considered some of the linguistic and etymological implications of some English terms related to foraging, the task it is to place this discussion into a more empirical context. In doctoral legal research providing a fascinating and valuable base on which this research builds, Lane Lee (2012) explores the phenomenon of modern foraging in the UK in part through an application of "optimal foraging theory". Within this framing, she differentiates between "commercial", "purposeful" and "opportunistic" foragers. Commercial foragers conduct their activities for-profit or to support livelihoods. While on public or open land, commercial foraging is largely illicit, with permission—and barring any other restrictions—this can be lawful. Purposeful foragers tend to pick for personal or domestic use but aim for specific species or products in mind. Opportunistic foragers make use of wild foods as and when they happen upon them. This provides a useful starting point to apply this framework to London and a distinctly urban context.

This section draws on empirical findings, including participation in and observation of activities, discussion with participants about their habits and practices (and those they have observed), and secondary sources such as photos, blogs and printed materials. Below I outline four classes or "typologies" of urban foraging that differ slightly from Lane Lee's classifications. Those provided here are by nature imprecise and not mutually exclusive. Indeed, one particular features of urban foraging practices is how they can assume different identities, depending on their context, and sometimes simultaneously. Rather than a generalisable set of categories, the purpose here is to tease out some of the distinctive aspects of navigating and coming to know urban landscapes through the search for wild edibles. This is not therefore a complete compendium of the typologies of botanical encounters that "urban foraging" encompasses.

Building on Lane Lee's (2011) classifications and, given its somewhat marginal status in an urban context, here the analysis captures "commercial foraging" under the same rubric as "purposeful foraging". This is not because there are not important distinctions in motivation, economy and legality between them, but because they can be interchangeable in terms of the types and amounts of plants collected, as well as the specific modes of collection. The analysis amends "opportunistic foraging" slightly to "incidental foraging", accounting for some of the different meaning that foraging takes on in an urban context. Indeed, in the next chapter I refer to the "opportunism" as a *motivation*, as opposed to a *mode* of urban foraging. This refers to the reason for the action—the availability and accessibility of edible plants—rather than an opportunity *in passing*. This also distinguishes it from foraging through impulse, cultural drive or tradition. In addition, I offer *didactic foraging* and *communal foraging*. "Didactic" foraging is not only a question of education and instructed learning but

how the urban can be microcosmic or experimental. “Communal” foraging is an issue of collecting plants in groups but also one where a primary purpose of the exercise is to foster community. All of these demonstrate how forms of knowledge and knowing are differently deployed, depending on context, and are intertwined with how landscapes are interrogated or traversed.

a) Didactic foraging

“Didactic foraging” refers to the ways in which urban foraging is captured in contexts of teaching, learning and demonstration. One of the key modes of didactic foraging is through organised foraging walks, led by individuals or organisations. While collective practices, these are not in essence *communal* practices, not least because they are not intended to forge or generate communities of praxis. Nor do they tend to bring together people who already know each other or who are from the same neighbourhoods. The topic of focus is not connection with other people but with plants, and knowledge of them. Such events are accessible in the sense that they are public and publicised, and while participation might occasionally be free of charge, they are more frequently booked in advance and have a fee for attendance. The amount paid can vary markedly, with some community-oriented events asking for ten pounds or less but the price often being between twenty and forty pounds, and others costing more. One foraging instructor, John, recently began a reduced rate walk with the poor and unemployed in mind, partly as it seems a rejoinder to the accusation that urban foraging can be an elitist practice. Walks tend to last between two and three hours and attendance ranges from between ten and twenty participants. Some events are targeted at more specialised audiences, including chefs, bartenders or herbalists, and tend to command a much higher attendance fee. Different people lead these guided walks but it is notable that they are *led* in some form, with a teacher or instructor assuming a position of relative epistemic authority.

Some attendees have deliberately sought these events out or been to previous ones, some may be seeking a one-off “experience”, while others may have been gifted vouchers to attend by someone else. Although attendees may be more inclined to attend such walks if they reside close by, the groups observed consisted of people who had travelled from various different parts of the city. People bring with them a range of pre-existing knowledge and experience of plants and food. Often, by way of commencing the walk, participants are encouraged to introduce themselves, say their motivations for joining, and detail some of their previous experience of “foraging”. Many are reluctant to claim extensive foraging knowledge, but when nudged, acknowledge that even the most modest of experience can “count” as foraging to some degree.

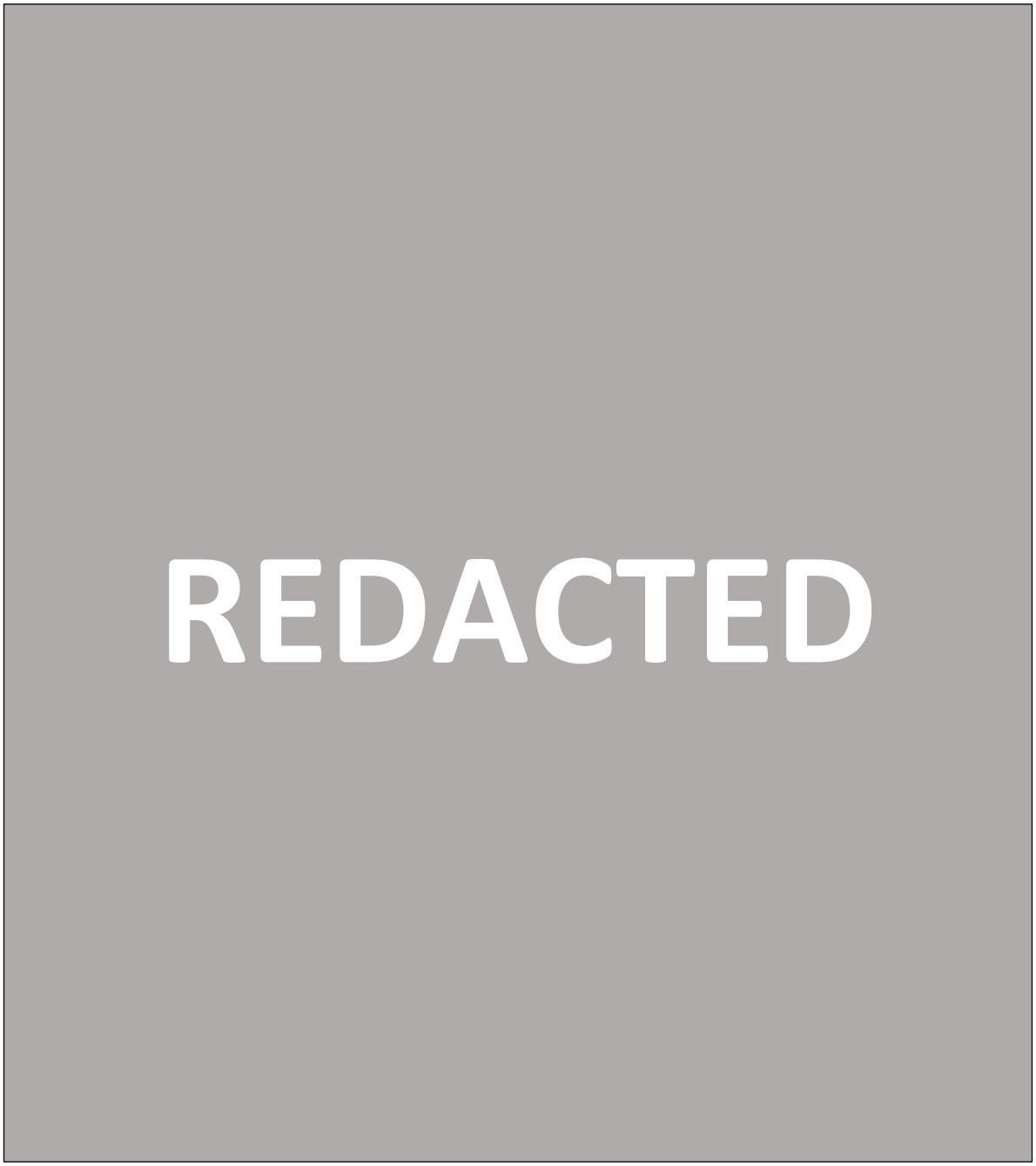

Figure 3.2: Demonstration of seed collection from reeds in during an organised foraging walk. Source: photo by author (2017). Props and tactile encounter are integral to this form of knowledge-sharing, while the diverse but controlled contexts of city parks provide a ready-made space for performance and practice.

City parks provide the most common setting for this type of organised walks - they offer a variety of species to encounter and discuss but a bounded and managed (or manageable) terrain for groups to explore. In the more controlled setting of a park, distances covered walking are lower, and the location, health and abundance of particular species can be assessed ahead of time for those guiding an event. This emphasis on the practical application of botanical knowledge—in terms of establishing both what a plant is and how it can be used – is the central theme of such walks. Indeed, although walks are an active encouragement for people to learn about and make use of the plants growing near to them, the walks do not involve the removal of significant quantities of plantstuffs. Although a city park provides an apt backdrop for the demonstration of safe and responsible picking, it may not provide the volumes of material for provisioning at substantial or subsistence levels. With various tips and advice in mind, precisely where and when to forage later is left to the discretion of individuals. The implication is that participants' own foraging is something undertaken *elsewhere* and such walks, while providing a literal taste of such activities, offer only an opening to a more individualised praxis. As the topics of discussion would flit between the botanical, the culinary, the folkloric, the alcoholic, the medicinal, and of natural history, the format of such walking appears aimed as much at entertaining as educating, although they need not be distinct. In this manner, the park is transformed—at least temporarily—into a tasting kitchen, a cabinet of curiosities and a stage.

Performance is often aided by props produced out of rucksacks en route. Pre-prepared leathers, spirits, fermentations and experimental concoctions in unlabelled bottles are passed among participants, along with items of bush craft such as rope made from nettles and cups made from bark, demonstrating just some of the potentials that plant knowledge, skill, and opened eyes and minds can hold. Several guides (one explicitly rejected the term "expert") were keen to emphasise how foraging requires time, patience and attentiveness. It is a form of knowledge built through trial and error, of having-a-go, albeit within boundaries. One walk organiser explained how he discouraged using shared foraging maps or quick fix online identification. They could be both unreliable and anathema to the spirit of foraging, which should be about finding one's own way, rather than others doing the work for you. Others were keen to conduct such walks in as non-hierarchical manner as possible, encouraging participants to share their own knowledge and experience. Such pluralist renderings of what we know and how we should find out are somewhat contradicted by the temporary and contrived setting and some of the expectations of participants searching for a one-off experience or authoritative insight from an expert.

Furthermore, while the themes and sources of knowledge from which guides draw are eclectic, the spaces in which the walks take place—their history, legal status and future uses—are far less of a concern. The parks in question are more of surface *on which to practise* foraging, rather than a landscape *in which it is practised*. In a sense, bounded city parks offer not so much a larder as a living cabinet of curiosity – a microcosm of the potential that the rest of the city and beyond *might* offer. Such walks represent less the collection of food and more the enactment of hybridised forms of knowledge about plants, food and landscape.

In a discussion of comparable city foraging in the US, Ching and Creed (2014) offer a particularly sceptical take on both the form and function of similar walks in the US, and the phenomenon of urban foraging and wild food more broadly. For them, in the process of turning towards "wild" urban food, there is the danger of erasing the meaning and value of the countryside – of finding "culture without agriculture" (2014:119). They frame the "forager as flaneur", describing the vestiges of "foraging" in the city as a form of urban play. Some of their observations are applicable to London too, where the politics of food and taste, particular framed in opposition to the perceived malignancy of industrial food production, have a particular piquancy when wrapped up in various mythologies of local, ethical or sustainable food. But they also vary greatly and for the most part, the claims made by those leading organised walks were fairly modest and caveat-laden, rather than exuberant solutions for the flaws in the food system. Importantly, they can be valuable entry ways for people to begin to notice, value and make use of urban plants in response to concerns of "plant blindness", discussed below. However, what they do not offer is a clear template for transposing these skills and knowledge at scale or in different contexts.

An alternative iteration of *didactic foraging* comes in the form of the walking research interview itself. As discussed in the methodology section of the introduction, walking interviews are an increasingly pronounced method within the social sciences concerned with mobility, landscape and nature. What became clear through the handful of walking interviews I conducted through the research was that methods *on the move* are not simply more effective ways to get at already-formed worlds. Foraging *as method* itself generates new articulations and registers, with the presence and conduct of the researcher as supposed observer having a distorting effect. Rather than a detraction, this offered a helpful indication that cities provide unsettled and unsettling ground upon which human and plant relationships can play out. So, while trying to observe urban foraging through walking interviews is partly to construct a temporary reality, picking wild food in urban landscapes is itself a negotiation of the artificial and the natural – it is necessarily contrived. The shifting ecological and cultural meanings of

urban environments mean that even where "old ways"—movements, knowledge, practices—are invoked, such relations emerging are doubtless novel.

I had originally met Kevin at a different organised foraging walk in Finsbury Park. This time we agreed to meet in Greenwich and closer to where he lived and where he helped manage a food-based social enterprise. The two or three hours we spent meandering the backstreets of the old town, its churchyards, up the slopes of the park and then down under the river by foot to Island Gardens was neither planned nor formulaic. While we were both familiar with the area, this was not a route either of us would have typically taken. We touched and smelled things as we picked our way along the route yet-to-unfold, guided in part by the plants we encountered. Exiting the station, we were immediately confronted by clumps of rocket growing freely from the cracks in the pavement and base of posts and poles. Its pungent, peppery fragrance was an adequate stimulant, without tasting it. Nightshade and its typical Solanaceae leaves and flowers, reminiscent of tomatoes and potatoes, prompted discussion of the challenges of identification. We sampled Oregon Grape (*Mahonia aquifolium*) across the river, as much to confirm that its flavour failed to match its striking purple berries and juice. With digital recording and even note-taking troublesome when on the move, I spent the next while after our parting retracing parts of our route as a means to remember and note down the details of the topics we covered. If it were not for the act of recording and writing, the form of such a walk may well have faded from memory but the research itself preserves it to some degree. This would be altogether academic if such "walkalongs", in which interviewers accompany foragers in their activities, were not a common trope of articles and journalistic writing on urban foraging. In truth, such interviews are not accounts of otherwise "authentic" foraging praxis but particular forms of that praxis themselves.

Didactic foraging can sometimes be imagined as a microcosm of or gateway into a wider and deeper understanding of nature and ecologies.

> The regional or even global impact cities thus have stresses the important pedagogical role of functioning ecosystems in cities, especially as urbanization is increasingly disconnecting people from the nature that supports them (Andersson, 2006)

Most participants and discussants acknowledged that urban landscapes are unlikely to be able to support widespread extraction of their wild plant stocks. Yet, there was some disagreement in how its learning can be applied in other spaces and scales. It may provide a means to connect with an immediate, material nature but how that translates to a more abstract or distant sense of the natural world is challenging. There is also the consideration that the acquisition of foraging knowledge through deliberate or contrived circumstances of urban "play" invoke a rurality or wilderness that is increasingly under threat from climate change

and other processes. The assumption that there will always be spaces and landscapes for more "authentic" foraging, elsewhere, is in doubt.

b) Communal foraging

Communal foraging is as much about *gathering people* as it is *gathering food.* The previous chapter established how cities can be vehicles for dislocation, as much as conglomeration. Migration can bring people from various parts of the world but cities do not automatically provide the means for them to connect. One of the most impactful aspects of the surge in community food-growing projects is the benefits for individuals and communities stemming from bringing people together in a shared activity. Foraging in cities can fulfil a similar function. "Communal" foraging in this sense is not just a case of people going picking in groups (and in many areas it may well be a de facto communal practice) but where the reasons for doing so are primarily focused on people and the group.

Company Drinks, made brief mention of in the previous chapter, as well as the following, is named precisely because it uses plants and food as a reason to bring people together. Of its volunteers and attendees, many are elderly, in a city in which social isolation is a major concern. For some, the social enterprise has given them another lease of life. For example, Vi, one of the group's stalwarts, explained in a recent Vice magazine article (an indication of its success) that "it's company, isn't it" that keeps her coming back (Tandoh, 2019). Upon arriving late to one elderflower pick, I was quickly reminded that I need not have rushed. Cake and sandwiches were just finishing up at the picnic table where the group had ensconced itself, while beer and wine was already being drunk. Eventually we made our way over to a clump of elder trees a short distance away and took what we could and within reasonable reach. With a firm knowledge of where different botanicals could be located, this had become more a question of *harvesting* than going out and *foraging*. The optimal time to pick elderflower is on bright mornings, with buds freshly opened – its striking inflorescence comes into bloom for a couple of weeks at the end of May. We may have been a little early as collecting enough meant stretching beyond comfortable distances up the trees, while teetering on a fence. Communality, while growing out of presence and participation, generates meaning and connection beyond the space and time of picks. The drinks that Company produces are themselves an act of community, bringing together plants from different spaces across the city. Initially a contribution to a season of events and exhibits at the Barbican Centre (see the next chapter), the *London Urban Herbal* contained ingredients sourced from several of the sites mentioned during the thesis, including Phytology at the Bethnal Green Nature Reserve, the Castle Climbing Centre Garden and Tower Hamlets Cemetery Park (see map, figure 1.2, p50).

During my participation in the various fruit harvesting associated with the Abundance network (mentioned previously), several of the women I spoke with mentioned how important it had been for them amid some of the loneliness and isolation that can accompany pregnancy and early motherhood. Picking fruit offered a medium through which to reengage with neighbours and neighbourhoods, as well as an activity requiring little expenditure and accommodating for bringing children along. For another volunteer from Afghanistan, helping organise picks and the logistics around them provided a means to stay occupied and connected to the community as he was otherwise prohibited from working while his asylum claim was being processed. While the idea of avoiding food waste is the central premise of harvesting networks, it tends to be the sociable and communal aspect which keeps people coming. If it were merely a case of repurposing the fruit in the most efficient way as possible, it would not be nearly as appealing. This communality has an immediate—sharing space and time with other people—and wider resonance when fruit is ultimately shared with local organisations and kitchens. This latter point is one that may not be instantly visible for those people picking, so the ritual of weighing and recording the fruit collected, as well as social media posts and communications about where the fruit has gone, provide a channel that connects pickers with their wider communal impact. Fruit trees, especially mature ones in domestic gardens, can offer peculiar affordances to those aiming to collect their produce. Trees grow through and around the spaces that gardens provide, with branches protruding into neighbouring gardens, over walls or suggest precarious means of collection. Climbing, mounting and reaching for fruit creates quite peculiar engagements with arboreal materialities. We might say that fruit harvesting also involves being *in commune* with trees themselves. Occasionally pickers' movements are directed by where trees and fruit have been glimpsed over walls but it is largely through word of mouth and the willingness of owners to invite relative strangers into their gardens. There is always some uncertainty about how much fruit a certain tree might yield, when it might be ready, and even if the homeowner is willing to have people occupy their garden for a few several hours. In practice, this form of harvesting does not involve a great deal of walking but proximity facilities and motivates those nearby to take advantage of fruit that might otherwise rot on the branch or on the ground. Rather than tracing identical lines through the city, harvesters descend on a single spot via multiple different routes and their subsequent movements are guided by the form of the gardens themselves. Relationships between the harvesters and tree owners are critical components of the networks and the cyclical, seasonal return to gardens becomes more and more socially embedded and with it perhaps an increased onus to return again each year.

Figure 3.3: London Urban Herbal Tonic. Source: Company Drinks (2017). The bottling, labelling and photography is testament to the artistic orientation of the organisation.

Figure 3.4: Communal apple harvesting, Brent. Source: Photo by author (2016). Extendable poles enable people to adapt to the height and form of fruit trees.

Private gardens are opened up through the people that arrive and the materials that depart and which are distributed and processed into various products. Such networks are not only focused on domestic gardens but prompt walking further afield. Walking and picking, in all their idiosyncrasies, bring you to the edge of the metropolis: place names all too familiar but geographies unknown to those whose vision of the city extends little beyond its iconic centre. A blackberry pick took me to one such edge—Stanmore—and a group of local harvesters who were heading for the great stands of twisted bramble adorning the slopes of the Stanmore Country Park. The yet-to-be-picked blackberries already had a designated purpose in mind – a kitchen and jam-maker awaiting them, before ultimately being sold at a local fete. This might more resemble "purposeful foraging" (below) but what separates this form of harvesting is that while the produce to be collected is the excuse to go, it is the communality of the experience that drives people. If it were only the volumes of fruit in mind and conducted individually (and perhaps more efficiently), such an activity would lose much of its meaning for those involved. As the previous section suggested, the implication of "harvesting" is that there are specific sites and plants in mind from the outset, and likely visited in previous years, and thus a location to which one "arrives". In this case, the two or three stopping points at which the group dispersed, each with their own set of containers to collect the berries. The shape and thorniness of briar requires careful movements into bushes, tiptoeing to reach high berries, while attempting to disentangle caught clothing as you go. Such picking methods create distinct concave, human-sized indentations in bushes, marking a space as having already been picked at least once already that season. These hollows gradually isolate pickers as they creep in deeper but remain close enough to maintain conversations with others. It was not just the blackberries that brought the group there - the ridge on which the park was situated afforded wide vistas across much of the London region. A good indicator that such a harvesting trip is as much, if not more, about company as it is the crops to be collected, is the integral appearance of a shared lunch. In this case, conducted halfway across the footpath to the summit, given the awkward topography, and providing both nourishment and a reminder of the collective purpose of the activities. That pickers actually took little of the fruit they had picked home is somewhat irrelevant when the communal facets of such mobility is as strong as their calorific.

For Ceri, a resident of Brixton and a writer and mediator working with local community groups, her arrival at urban foraging was slightly by chance and circumstance. Her story runs somewhat counter to the image of the solitary forager, protective of their patch. As she explained it, Invisible Food—the project that arose from her initial ventures in walking and

food—"was quite the opposite, kind of showing people where you can find things and not withholding information", she explained. The project emerged from when she:

> Started doing very random and informal walks in this area of Brixton where I was living in …on the Loughborough Estate. I'd just had my son as well…so I was kind of in parks a lot. So I was kind of multitasking, looking after him, getting out in the green spaces that exist and also with my eyes to the ground learning about plants.

What she developed from a small amount of funding was a map of the area and postcards featuring poems centring on the parks' extant plants and their uses, which were subsequently delivered to local households. A series of monthly walks subsequently evolving with people from the local area (her "primary audiences"), as well as those coming from further afield. As she describes it, the walks had a certain anarchic ethos, with discussion meandering around various topics of food, plants, culture, and place. Attendees were drawn from a range of backgrounds, with the walks encapsulating a microcosm of the city and the area's diversity. This is exemplified in a cookbook, *Street Food*, written as a result of the success of the walks, with a series of recipes making use of wild food growing locally, divided into monthly sections, each of which focused on a different world food region. The book is replete with beautiful glossy photographs of the walks and cookery sessions that sprung from them. Captured in the photographs are various moments of people's encounters with plants – through touch, taste, sight and smell. As Ceri explained, engaging with plants had a levelling effect among the groups of walkers as they, for example, all knelt down to examine dandelions. As she also described, she was not a plant or wild food expert before initiating the project and, while she took responsibility for leading and coordinating routes, the process of learning was collaborative and horizontal, rather than authoritative and hierarchical.

> I got really overwhelmed with people's questions because people are trained and educated to relate in a teacher-student hierarchy[…] I was saying something very different, 'I just want to learn, let's learn together'. I really noticed how people came to me with questions that I didn't know the answer for but I could say "ok, let's look in a book"[…] it links into kind of folklore and folkloric learning, which is passed down orally or through experience, there is a kind of wisdom and there is a knowledge […] and I really tried to connect with that kind of method of learning.

This hints at something revealing about critical walking and plants: while there is established, verifiable and useful botanical knowledge "out there", where communality is the orienting logic of such botanical encounter, this can flatten hierarchical knowledge, especially in a context of incomplete information of a place. The anarchic routes and formats of such walking can elide orthodox or designed modes of conceiving the values of plants, and where

most people conform to the designed orthodoxy of plant presences, there lies scope for democratic rereading of urban landscapes.

c) Purposeful foraging

Purposeful foraging describes those mobilities and practices of collection that place the plant and its potentiality as food at its centre. As this section of the chapter makes clear, such practices can be filled with other modifying meaning and values but its primary emphasis is collecting plants and produce. Those engaged need not do so consciously self-identifying as "foragers" but with the conscious intent to undertake practices termed here as "foraging". It can encompass any of the specific activities discussed in the previous section. It is the most general of the categories proposed here and can cover "personal" and "commercial" foraging. In that sense, "purposeful foraging" is neither intrinsically sustainable nor unsustainable. The volumes and modes of collection can vary widely.

A key question of purposeful foraging is what guides the walker through landscapes. The lines and mobilities of purposeful foraging, although varied are shaped by botanical presence or signs of it. These can be broken down into several different subcategories. Where species are either abundant or often adjacent to roads or pathways, patterns of collection are shaped by these infrastructures. Delving deep into scrub or bushes serves little purpose if adequate produce can be more easily accessed. If species are particularly popular, such as blackberries or elderflower, these may warrant more divergence from existing paths to secure better quality or more abundant materials. Plants such as nettle (*Urtica dioica*), while a frequent sight on verges and roadsides (they benefit from nitrogen rich soils) are also more likely to contain biological or chemical contaminants, such as dog urine, so may also result in more obscure paths being taken.

The question of pollution and contamination hovers over urban food foraging practices. Little research to date has been conducted to assess the relative safety of city-grown wild plants versus either cultivated varieties or those collected outside of urban settings. Urban soils are often found to contain higher concentrations of heavy metals from a range of industrial, domestic and transportation sources (Alloway, 2004) but the specific availability and pathways of uptake by plants, as well as their concentrations in different plant structures is less even and certain (McBride et al., 2014; Sharp & Brabander, 2017). For example, edibles sampled and tested from domestic garden sites in Chicago suggested the transference of lead from urban soils, with particular concentrations found in root systems, as well as the stems and the edible parts of leafy vegetables. The fruiting parts of the plants did not record lead above detectable levels (Finster et al., 2004). It is for this reason that some concern has been

registered for the safety of urban food cultivation, due to the frequency and intensity of soil use, as well as the types of food crops cultivated, meaning the possibility of increased exposure and requiring risk mitigation (Kessler, 2013). For uncultivated foodstuffs growing in cities, the picture is less clear, not least because of the variability of the spaces in question. Studying the toxicity and nutritional value of wild growing edibles in the San Francisco area, Stark et al. (2019) found, despite elevated levels of lead and cadmium in the soils, that the plants studied contained levels far below the US EPA[49] maximum acceptable daily dose. Early results of research conducted on gleaned urban fruit in Boston suggested levels of lead concentration below harmful rates, concluding that, "consumption of urban fruit does not represent a significant lead exposure pathway that merits immediate concern" (Gallagher et al., 2015). It is plausible that the mobility of urban foraging and the tendency (sometimes considered best practice) not to over rely on individual patches may mean lower risk of exposure to industrial pollutants than cultivated urban food sources. Studies of London's topsoil tend to suggest that domestic gardens, despite their presumed safety and management, show greater concentrations of heavy metals, including lead, than other sites (Lark, 2013). One suggested reason for this is the historic use of such chemicals in domestic products and building materials, such as paint, that become deposited in gardens. A more frequent concern raised by foragers was the use of herbicides and pesticides in the management and treatment of urban green spaces, such as Glyphosates. The impacts of spraying tend to have a more visible and immediate impact but even the possible presence of synthetic chemicals tends to unsettle those intent on picking in the city. As suggested during the previous chapter, this discontent is as much perceived as it is material. The unknown—and largely unknowable—material and chemical composition of soils across an urban landscape undermine the arguably misplaced idea that cities are necessarily tamed or controlled spaces. The patch dynamics of urban landscapes also mean significant and proximate variability in land use history and soil composition, jurisdictional and management regimes, and the potential for the translocation of materials through infrastructures and ecologies, such as hydrological processes. As the final chapter explores in greater detail, "rules of thumb" tend to become part of the modus operandi for urban foragers with conditions of uncertainty and incomplete information.

Nevertheless, the kinds of ecological, botanical and landscape cues conventionally exploited by foragers in non-urban settings are disrupted by the uneven natural and cultural topographies of the city. During an organised walk in Crystal Palace Park, the instructor, James directed our eyes towards the presence of willow and elm as potentially indicative of water and a river valley, demonstrating how trees can help inform an awareness of landscape.

[49] United States Environmental Protection Agency

Instructive as this was, such parks and open green spaces often combine remnants of pre-existing landscapes, cultural imports and accidental arrivals. In the case of Crystal Palace park, such presences tell little of the Great North Wood that once spread across the hills of this part of south London and the ways in which the extraction and processing of wood shaped the ecology and economy of the whole area. The incompleteness of our ecological knowledge and awareness of the city runs counter to the perception of the city as a site of surveillance, control and cartographic representation.

Experienced and established urban foragers may have "their own" patches or routes that are revisited each year. While probably physically accessible to anyone, they may be discrete or have low footfall, meaning their presence can be guarded to some extent. Urban foragers may have specific species in mind ahead of time or commence walks with the intent of foraging generally, collecting whatever they find on the way. For this latter, more "adventurous", subcategory, the mobilities are likely more eclectic because they can be influenced by more than just where plants might be found or prior knowledge, but also other built forms, features and topographies that direct and shape their modes of walking. Where foragers are searching for particular species or types of plant and fungi, but do not have a specific location in mind, they may be guided by different landscape types, such as woodland, sandy heathland, marsh and riverbanks, or even parks, and the plants that might grow there. They are also shaped at times by the rules affecting sites, the degree of surveillance and enforcement, and the physical accessibility. Picking tends to be guided by some interpretation of responsible or sustainable practice. However, one forager, picking for both personal and professional reasons, stated that when he finds what he needs, he tends to "just take it all",. In any case, it is difficult for individual foragers to know fully what responsible practice involves, both because ecological processes are not always visible and obvious, and because the interests and actions of others in the city is an unknown quantity. Urban foraging is thus largely guided by different "rules of thumb" that suggest if, where, how and how much to take. Chapter 6 delves into some of the implications of such a form of self-regulation.

Other foragers explained how they avoided returning to the same patches too many times to avoid any chemical build-up in the body. In addition, there are the phytochemical qualities of particular plants that suggest whether they should be avoided and consideration or ecological value or rarity. As per chapter two, the idea of "personal use" has some legal meaning in as much as it is distinct from "commercial use", which is illicit on many public or open areas. The legal interdiction of foraging through byelaw schedules across many sites and jurisdiction in London *can* influence how and where it is practised but a degree of ambiguity

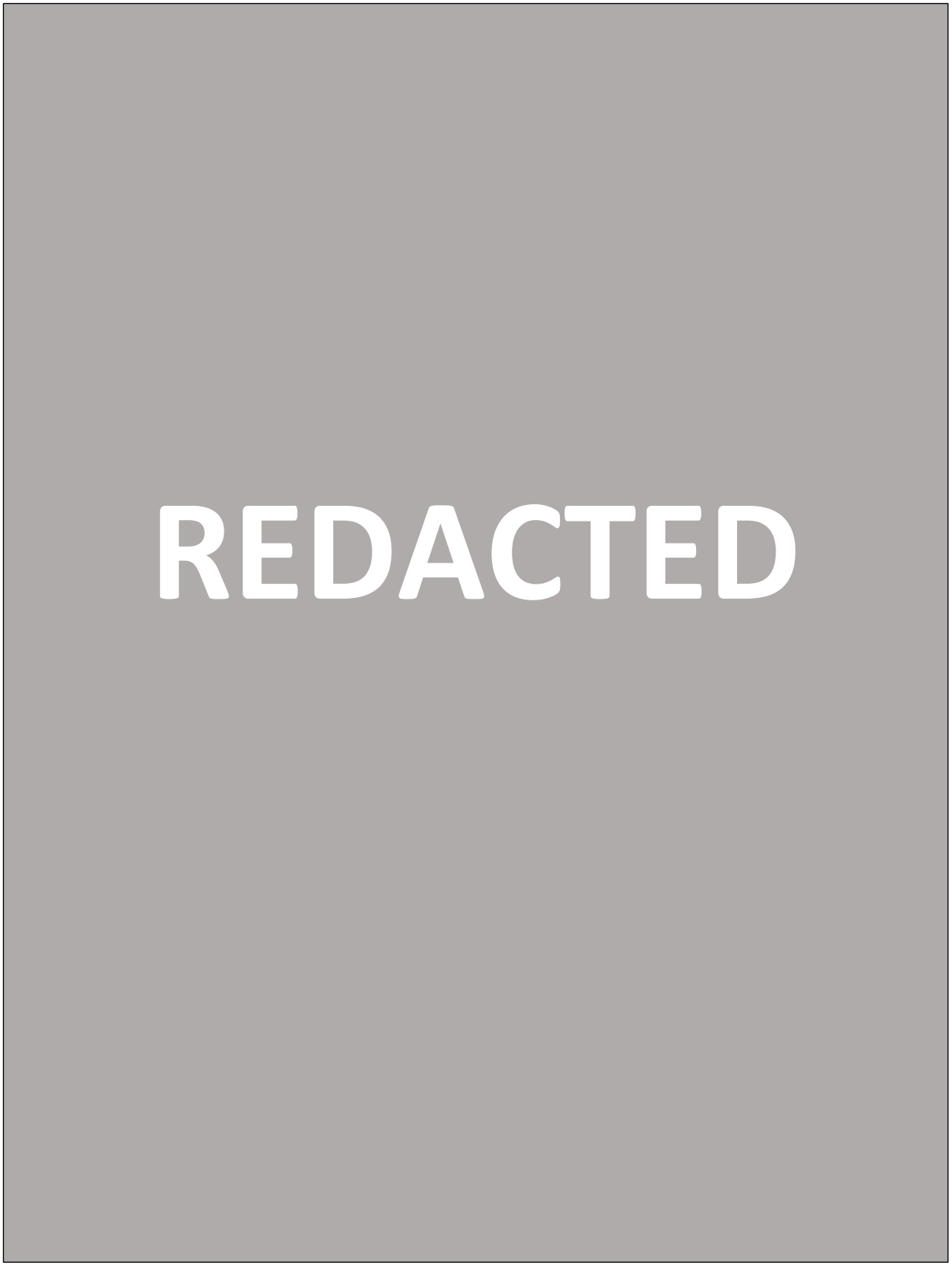

Figure 3.5: Mugwort and mallow growing through fencing during a foraging walk in Finsbury Park. Source: photo by author (2017). Urban spaces shape the affordances of plants in peculiar ways.

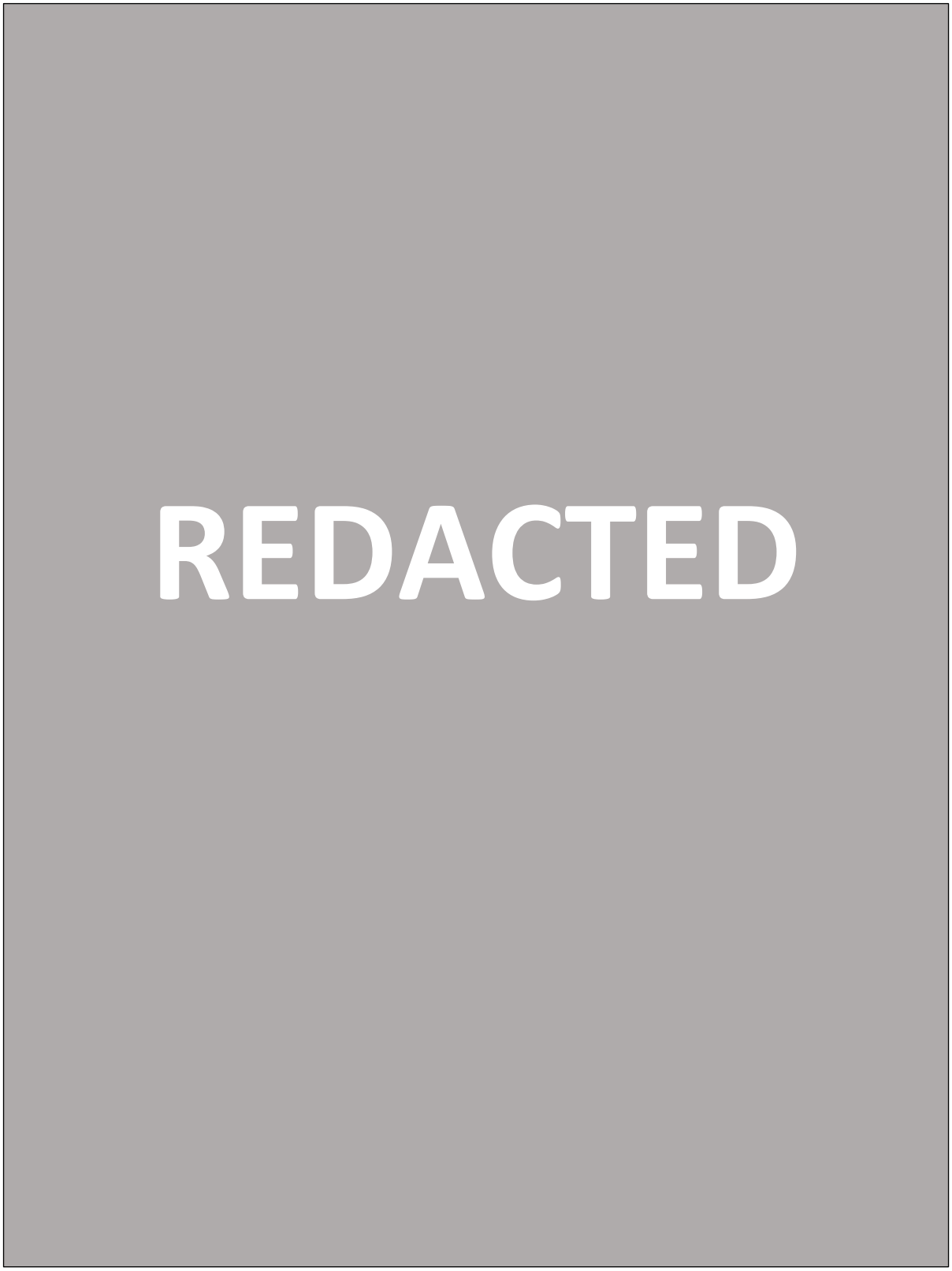

Figure 3.6: Cherry plums collected during a pick on Tottenham Marshes. Source: photo by author (2017). Affordances involve both properties of plants themselves and of the surrounding environment.

- or plausible deniability – means these are often overlooked. The relative effectiveness of purposeful foraging strategies depends in part on the values derived from the plants collected.

Optimising efficiency and minimising expenditure of time and resources is important for commercial practices, especially given variability and uncertainty in urban contexts. For those picking as a form of leisure or domestic use, while time and labour costs are not irrelevant, the smaller quantities and non-monetised purposes mean efficiency may be of lesser concern than, say better quality produce or the perception that foraging is done responsibly. The "rules of thumb" suggested here can also provide a helpful excuse for stopping when the effort required to continue becomes too great or the gains become marginal. Finally, there is some underlying tension between the logics of picking "responsibly" and not taking too much, and the concern held by some that potential food should not be left to go to waste. The extent to which "purposeful foraging" involves collecting what we might already consider to be food or actively setting out to enrol plants into the processes and economies of urban food systems is one for debate. Although the previous chapter suggested that it was often more a case of the latter, as urban landscapes become more familiar through foraging, and sites are frequented regularly, while not cultivated sources, such plants may begin to foster a more enduring status *as food*.

d) Incidental foraging

The presences and possibilities of plants in cities are often unpredictable. Familiar and edible plants can appear in surprising places. "Incidental foraging" is conducted *in passing* or *en route* to somewhere else. It does not constitute the primary purpose for moving but foraging becomes an adjunct to existing urban walking routines. The main examples cited during the research were along routes to drop children off at school, walking to work, or walking to transport nodes such as stations and bus stops. These practices resemble what the environmental journalist Nathaniel Johnson describes in *Unseen City* (2016) of how perambulating with his daughter opened his eyes to the edible herbs growing along the ways they walked. This mode of noticing the city—in the company of children—was one cited on numerous occasions by foragers as a means of encountering the city anew and method of shared learning. This reframing of urban space is through the questions children may ask of plants along the way and how their size and perspective might see plants differently. For Rachel, a writer and forager, teaching about plants to her son gave her the incentive to better understand and identify those they encountered when walking and their possible uses and edibleness. They would share handfuls of nuts and berries on the way to school, providing an extra boost of calories after breakfast. Soon her son, who learned to identify plants through this form of plant walking, would confidently pick foods on the way – reflecting a lack of inhibition on the part of children when it came to foraging echoed by numerous people during the research. She noted how his capacity to absorb botanical knowledge quickly outstripped her own. Unlike Nigel Thrift's (2003) figurative use of Pepys's phrase "with child to see any

strange thing", children are a literal means to uncover the possible meaning of everyday life in the city. Another forager used the school run to spot interesting-looking patches and return to them on the way back.

Such foraging imposes no obligation to pick, in as much as it does not involve dedicating time and energy for the purpose. In terms of botanical knowledge, such a mode of foraging lends itself to the incremental acquisition and compiling of knowledge and avoids the disquiet of feeling unable to identify a specific plant (because the purpose of the walk is not dependent on such an ability). There is the issue that incidental foragers may not necessarily know the spaces and their past uses enough to be comfortable eating what grows there (although this is applicable to several types of urban foraging). Incidental foraging is valuable because it is not dependent on set-aside areas or derelict and neglected sites – both of which present challenges for the practical, legal and safe gathering of food plants. Incidental foraging is generally low impact in nature because it does not afford the collection of large quantities of plant materials. There are of course multitudinous plants and affordances that emerge "along the way", not least given the variety spaces through which urban mobility takes people. What is common to these forms is that they do not frame urban nature as exceptional to the city—as sites of escape or sanctuary—but are integrated into the pace and rhythms of urban life. This might work one of a few ways: a familiar and habituated urban route is reconfigured or enlivened through the acquisition of knowledge of plant identification and use. Equally, the forms of the spaces encountered may change with the arrival or growth of new plants. Conversely, the walkers may take on novel or alternative routes, shaped by an awareness of the plants that might be encountered on the way. Foraging remains incidental to the main purpose or direction of such mobility. In both cases, there is something of a transformation of place in the mind's eye as the landscape becomes known and familiar through the presence of botanical others, akin to what Tsing (2012) describes in how mushrooms offer directions along a path. The rhythmic, repetitive, and often longitudinal qualities of such walking lend it a slowness and embeddedness. Foragers (although they may also be observers) become daily monitors of plants and botanical life in certain areas. These slight reformulations of existing patterns of urban mobility can mean observing certain things in greater detail, perhaps dwelling a little longer on the way, or bringing along a small bag or container ("just in case"). Forms of public transport such as buses and trains might also provide perspective and viewpoints. It was mentioned more than

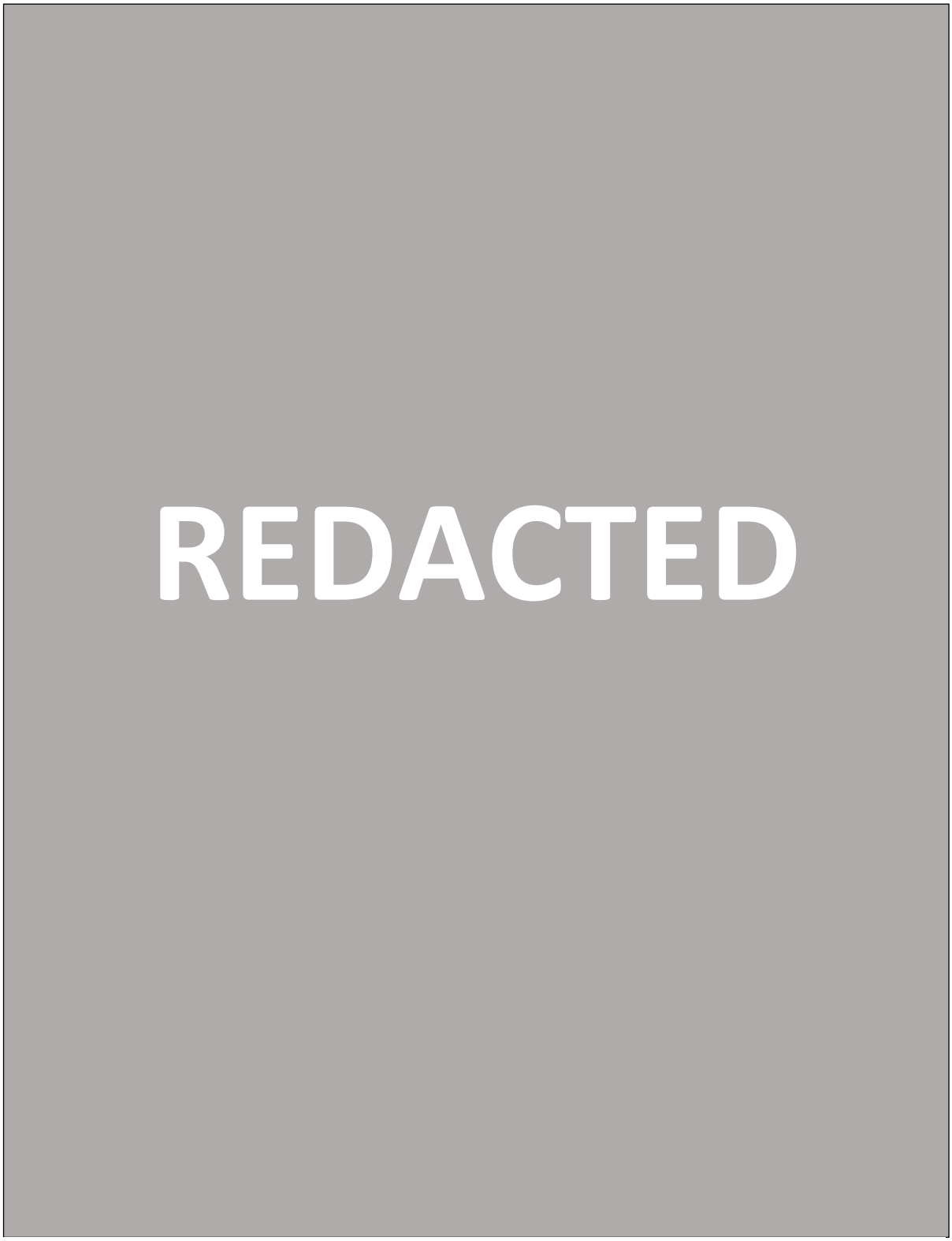

Figure 3.7: Edible garden, station platform, Kilburn. Source: photo by author (2017). Initiatives to promote picking can be found in various, otherwise prosaic, spaces in the city. Such spaces at transport hubs are designed to encourage incidental picking, located at transport.

once how the top deck of a bus provides vistas of edible plants on the other sides of walls and fences to which the walker at street level would be wholly ignorant.

Such forms of foraging can be and are encouraged in different forms. Part of the rationale of Incredible Edible and other edible landscape initiatives mentioned in the previous chapter is to bring people into easy contact with plants for picking and foraging. Similarly, edible areas on station platforms are an increasingly common sight in London, from which commuters and travellers can take as they move (see Figure 3.7). The material limits of such open-access resources are in part protected from over-extraction because the spaces do not lend themselves to dwelling for long periods or dedicated foraging trips there. Planting at the edges of gardens or in hedges can also provide an invitation for passers-by to pick and sample foods as they go, without the need for permission from owners – much as roadside "honesty boxes" for eggs and vegetables are a common sight in rural areas. Street trees are themselves a key element of incidental foraging because, as Paul—a street tree expert— explained, they are unlikely to have been planted with their fruit or nut-bearing capacities in mind. Falling fruit is often considered more nuisance than amenity for residents. The multitude of edible-producing trees would in theory present any number of opportunities for incidental foraging but, as the previous chapter also explored, such presence and proximity does not necessarily result in the enrolment of such trees as food sources. Mature trees are often too tall to reach and, in the case of soft fruit, windfall and foot traffic is likely to make fallen fruit unusable.

e) Examples and hybrids

The final part of this section aims to give two examples of how the typologies outlined above combine in different contexts. The first of these centres on the multiplicity of an activity, the second on the multiplicity of a place.

Al was raised in Hackney but his family had come from Cyprus several decades ago. We sat and talked in the kitchen of his flat for some time, unwittingly recording some conversation with his mother as she entered, laden with vine leaves she had picked on the way in, and unaware of mine or the recording device's presence. He showed me jars of vegetables picked and pickled the previous month and various herbs drying in pots (see Figure 4.5). The recorded interview was prelude to a meandering walk around their estate and then out onto nearby Hackney Downs. The community garden Al had started up on the shared green space outside his flat had been a labour of love and collaboration with several of his neighbours. With an idea in mind, they had received bits and pieces of funding to help set the space up, which was beginning to bear literal fruit. It had formed a focal point for a community lunch the previous week, giving reason to bring the diverse residents of the estate around the table

together. It was with considerable pride and enthusiasm that Al showed me the various plantings and sapling fruit trees, trying berries and leaves as we went. The space is technically open-access, so in principle anyone can pass by and take things from the garden, but it is sheltered by housing on three sides, so unlikely to see much foot traffic. Where people do stop, it is a reason for Al to start up a conversation. We made our way out of the estate and over towards Hackney Downs, past the railway arches where I had previously visited Square Root—the drinks company mentioned in chapter 2—and a gin distillery supplied occasionally with wild ingredients from nearby marshes and parks. The Downs themselves were once common land, grazed by local animals and those passing through en route to the markets in the city. It saw flare ups and violence at the prospect of enclosure, prior to its preservation at the end of the nineteenth century but for Al, this stretch of greenery offered a peaceful space for sitting, working and contemplating.

Unlike the walk in Greenwich above, the route we took was one of several Al often walked but my presence no doubt affected the form it took that day. As he had explained earlier in the day, part of the meaning and value of foraging and wild food for him was in the showing and sharing with other people. It was thus with a certain enthusiasm that he showed me the various edibles as we walked, stopping as we went to sample oversized blackberries by the railway and cobnuts, a little too green but already loosening themselves from the tree. We sidled over to one corner of the Downs to sample the rarer (and not yet ripe enough) varieties of apple growing in a community orchard and wildflower meadow. We made the most of the last offerings of a black mulberry tree, the dense, dark fruit a rarity in London, leaving our hands stained with their juice. We sat and talked for an hour or more about plants, food, culture and the history of this piece of London. On the way back to the station, we encountered a tree unfamiliar to either of us, particularly its hard, spikey fruit under foot. With no awareness of what it might be (or if it was edible or useful), we stood there a while prodding at the fruits, trying to tear them open. We sniffed at them and pondered how it might taste, opting to leave them alone for want of more identification[50]. Such a walk is hybridist in nature. These are familiar, routine tracks taken to reach a specific place. En route, the plants encountered are incidental but not unexpected – they are factored in. Such is the purpose of the route, it does allow time and room to stop and collect plants as he goes. It is not communal as such but one of the joys he explains is the characters he meets on the way or in his favourite bit of the park. Finally, it is didactic to the extent that I am *being shown* as we

[50] I later concluded that it was likely an American sweetgum (*Liquidambar styraciflua*) tree and the seeds, while purported to have some antiviral qualities (see Lingbeck et al., 2015), were unlikely to prove pleasant to eat.

go, in a manner that would not have occurred unless I or someone similar had been in accompaniment.

Meanwhile, the example of Tower Hamlets Cemetery Park provides an example in which the history of the site, the plants and their uses are intimately entwined. For Ken, the site manager, organising walks focused on food and foraging were a "more sexy" way to bring people into the park and hopefully to foster a deeper interest in plants and ecology. Visible use of ecological spaces such as the Cemetery Park have a paradoxical status. On the one hand, amid pressures on urban space from development, spaces reserved for nature or as community assets have to continually prove their value. Getting people through the gates and using the site is an important consideration. Yet on the other hand, footfall can have a significant impact on the material integrity of the valuable woodlands on the site. As Ken and I wandered around the site, he explained how there tended to be a situation of "use it or lose it", meaning proving spaces are utilised by (human) residents is a prerequisite to secure funding and prevent encroachment by development. Ken is fairly tolerant to various informal uses of the site – even if people just want to sit, drink, dwell or even engage in sexual relations, as has been noted for other cemeteries in London (Gandy, 2012). One exception to this is the leaving of litter and waste on the site, which clearly frustrates him as he picks up detritus on the way. One of the few green spaces in the area to actively support foraging on site, this is allowed with some conditions. The issue of commercial foraging had affected the site in the past and it continues to be a concern today. Ken showed me patches where wild garlic (*Allium ursinum*)—itself popular among chefs—had been collected with little consideration or care. In the past, he had discovered that the foragers were supplying high-end restaurants in the city, which advertised the "locally sourced" credentials of the ingredient. It is not only the removal of the garlic but the trampling of other species along the way that is a cause for concern. Other pickers he had confronted were supplying nearby restaurants – his suggestion was that they either stop or make a modest contribution to the upkeep of the park. As Ken had explained, the non-uniform landscaping and planting can give the impression to visitors that the cemetery is derelict or neglected but quite the opposite is true with many paid and volunteered hours dedicated to the task of maintaining the site. He does not mind people taking reasonable quantities for their own use as he recognises that this is a productive way to engage with plants and that being too heavy-handed might put people off making use of the space. His staff also employ similar "rules of thumb" to judge what might be reasonable amounts – that which you can carry in two hands or in a carrier bag seem the most pragmatically appropriate approaches.

The foraging walk I subsequently joined with at Tower Hamlets Cemetery Park was marked by the distinctiveness of the space itself. While scholars have considered what it is to walk among urban ruins (Jorgensen & Tynecote, 2007; Edensor, 2013), and indeed in cemeteries, but little has been explored in terms of repurposing burial grounds as sites of food acquisition. I encountered mixed feelings about such practices – some foragers expressed concern about the presence of material pollutants in cemeteries as a result of the processes of burial; others were concerned by pollution on more of a moral plane. For Michael, a forager who had also been leading group walks of his own, "his" cemetery provided the peace and solitude in which to be mindful and in which he could learn in his own time, without the nuisance of either the public or site managers. The cemetery in Tower Hamlets had been de-sanctified several years previous, and so while the walk through the park was not disrespectful to the ubiquitous graves, rock and stone provided at times an uneven terrain across which to walk. The wild flowers growing between tombs offered points of both interest and flavour. The disturbed, rocky ground of the cemetery enables red valerian (*Centranthus ruber*) to grow abundantly and thus provided an opportunity to taste its sweet, fragrant flowers and discuss its possible medicinal qualities. The walk around the cemetery concluded with the creation of a concocted foraged smoothie, consisting of the varied herbs and plants we had sourced from around the site, and a portion of (non-foraged) apple juice. We had commenced the walk with a sampling of herbal teas in the small office and classroom space located on the site, where Ken initiated a discussion on the participants' experience and familiarity with the ingredients present.

The types of foraging performed in Tower Hamlets Cemetery Park give credence to the multiplicity of urban green spaces. There is clearly a didactic element to the foraging walks organised by the park but these do not appear framed around gastronomy and sustainable diets per se but an invitation for attendees to better and more deeply appreciate plants, botany and the ecologies in which they play a part. Purposeful foraging also clearly takes place there – practices to which staff are somewhat ambivalent, depending on how they are conducted and the amounts that are removed. Even foraging for personal use is only a vague guide towards sustainable levels of foraging as engaging urban plants for food is necessarily entering into unknown and somewhat unknowable ecological worlds. Parks and small patches of greenery in cities are often managed as self-contained spaces but the very ecologies that support the life of such spaces (and to which they contribute) necessarily rely on transgression of those boundaries. If we appropriately understand these to be cultural landscapes, then a permissive attitude of park managers encouraging access and conscientious use of their resources appears logical. People, practices and spaces rarely fit

neatly into carefully laid out categories and the hybrid qualities that urban foraging can assume may add complexity but can also be a source of value.

3.5 Food, science, and plant values

The urban foraging practices outlined above do not exhaust the ways in which people walk with, understand and engage plants in cities. The nature of city space and the proximity of inhabitants means encounter between people and plants, although sometimes mundane or overlooked, is frequent. For some, plants are encountered as weedy or invasive and requiring mechanical or chemical eradication. Others find delight in the aesthetics and aromatics of plants, whether cultivated in private spaces or met in public gardens. More often still, plants lining roads, railway lines and waterways provide what is interpreted as mere backdrop to everyday urban life, while latently playing lively roles in diverse urban ecologies.. Of all the many possibilities, this final section deals with one form in particular – botanical surveys and transect walks, which, by extension, demand attention to the "botanical gaze".

I initially joined London Natural History Society (LNHS) botanical walks during the fieldwork as a means to help bolster my identification skills and awareness of the city's floral diversity. While I declared my role as a researcher to participants at the beginning of these walks, it was not always clear how the walks fitted—other than their focus on plants—with my concern for foraging and foragers. One reason why they were valuable occurrences was that, unlike the slightly more unpredictable dynamics of foragers, "meetings"—to use the organisation's nomenclature—were scheduled and advertised well ahead of time and invariably take place. The records gleaned from the walks form part of the London Flora Survey – a project to record the wildflowers of the whole of the greater London metropolitan region last conducted over thirty years ago (Burton, 1983). Walks are conducted within one kilometre squares of ordnance survey maps, with occurrence of individual species recorded by hand and then uploaded into a shared database. Even though botany meetings are populated by a range of people, with a range of interests and expertise, these are not merely walks for pleasure. They are active components of ongoing scientific recording contributing to scientific understanding of changes affecting flora and vegetation in London over several decades.

Transects are established sampling techniques for biological surveys (Buckland et al, 2007). Rather than relying on quadrats, surveying using transects takes place along designated lines drawn across study areas. They are particular useful for assessing species change across different landscapes and zones of transition, while also able to record species abundance as well as presence. At a broader scale, the urban botany surveys discussed here are atlas-based, in so much as they cover a cartographic area, divided into grid squares. However, the

recording itself takes place along lines walked within these grids. In this instance, the transects are often not part of a "rigorous survey design" (Buckland et al, 2007:989) and can suffer from various biases (Rich & Woodruff, 1992). In the environment of a city, this becomes perhaps unavoidable as buildings, infrastructure, traffic and topological landscapes make structured and reliable transects impractical and inappropriate. Transect walks are not only tools for biology but also ethnobotany, anthropology and political ecology as they provide a method that helps examine landscapes, species occurrence and how people move through and relate to their environments. As Thomas et al. (2007) explain, transect walks can provide a context for qualitative interviewing methods—"walk alongs"—of particular interest to ethnobotanists, with their specific concerns for the cultural use and impact of human-plant relationships. They provide a context in which both scientific and vernacular framings can coexist but reveal a tension between the different purposes of botanical methods and forms of accuracy and local site knowledge.

Botanical surveys took me to places in London both novel and familiar. The first of these that I attended, not coincidentally, took place in the grid square where I lived. The streets, squares and green spaces of Shoreditch were those with which I had come to be most familiar but only in passing reference to the wild plants that grew there. I had talked with Annie, who was leading the walk previously about many aspects of how plants, people and botany in London had shifted in recent years, sat in the café at the bottom of Springfield Park, overlooking the Lea and the marshes. The walk around Shoreditch took me to nooks and crannies of the nearby estates I had not known of previously, and almost certainly would not have if we were not fixated upon the botanical and the uncultivated. We had a more or less predetermined route in mind that connected the interspersed patches of green of the area. My patchy botanical knowledge made contributing to what, although inclusive, was at heart an exercise in collective recording. However, my intimate knowledge of the neighbourhood proved useful for picking our way through and finding likely spots where new records might be located. The concern for the survey is not immediately with species abundance but presence – a single instance of an identifiable species warrants inclusion, as much as one which occurs frequently. As such, while rarity is notable and interesting to those in attendance, a commonly found plant counts equally in the survey. It is after all a contribution to a wider body of botanical and ecological work, rather than a self-contained piece of work in itself. The focus on the wild—self-sown or escaped plants—seemed at first somewhat arbitrary and a failure to recognise that these were cultural landscapes. How could we, as we walked around otherwise unfamiliar streets, determine what was escaped and what was planted? What about when things go "feral" or become "naturalised", taking on forms and directions

of their own, irrespective of the spaces in which they happen to be encountered or the specific mode through which they arrive? The phenomenology of walking and encounter can sometimes reveal only part of how things come to be as they are.

I quickly realised that such botanical walking exhibited a particular pace and rhythm. Being taller than most of the other participants, my strides, more accustomed to the urgency of *getting somewhere* in the city were often too quick and too long. I found myself shortening my paces unnaturally, an act which, while seeming less energetic, produced a particular sort fatigue. To gain an adequate view of plants emerging from cracks in the pavements or occupying the lowly margins of the thoroughfares, I found myself either arching over awkwardly or squatting down and soon feeling strain in my legs. Looking for wild plants reconfigures city spaces; cartographic navigation via landmarks, buildings, roads and junctions become secondary to verdant signs of botanic possibility (see Figure 3.8). Maps help but they do not show the details—sidings, cracked pavements, soil—in which we might be interested. The pace is not consistent enough to become acclimatised: we stride quickly past those areas void of any greenery or which only have species already recorded, and are suddenly covering a lot ground. Conversely, an extensive period might be spent in just a small area where a surprising number of novel species reside. From the outset, I find my vision is not easily acclimatised to the task. My focus and cognition take longer to recognise the specimens being pointed out; my slow processing reminds me of learning to speak a new language and leaves me a few seconds behind other more proficient botanists among the group. Spotting plants in the first place demands a particular form of pattern recognition, before you can even begin to identify them. Indeed, Latin binomials ring out amongst the stretched-out group - "Do you have *Veronica persicum*?" – one calls out to the group leader, who is busy scribbling down names in shorthand as we go.

Participants are mainly older, mainly white. There is no shortage of friendly conversation and all are welcomed, no matter the botanical proficiency. The more meetings I joined, the more familiar I become with the composition of such groups. Some regular faces attended almost all, while the rest of the groups were either those who came when they could and the time permitted or those that had some local connection to the area being surveyed. Many are seasoned naturalists, with both professional and personal interests in botany. Some are specialised in certain families or types of plant. People join meetings as both hobby and duty; the "thrill of the hunt"and also a sense that such activities contribute to something wider, while offering a chance to share knowledge with others. I never sensed any frustration at my simple and inane questions but was conscious of not pushing it too far. I contributed where I could but even when I recognised a plant, and could even name it, I lacked the linguistic

fluency to articulate this quickly and would often second-guess myself. I was conscious not only of my lack of botanical assuredness but also a desire not to centre myself in the scene - a likely quirk of personality and research context. Other newcomers were helpfully not so reticent in asking too many questions but were still met with the same knowledgeable and patient response as any other. On that first walk, my local knowledge provided a useful point of contribution. While my identification skills were lacking, I knew the history of the area and the importance of plant nurseries there before the canals—and the rest of the city—arrived. I point out the several references in building and street names to Thomas Fairchild, the nurseryman responsible for the world's first artificial hybrid – Fairchild's mule, a sweet William and carnation cross. Such information was, in truth, superfluous to the purpose of the survey but connected the activities to a longer natural history. Even for this, the "trendiest" of London neighbourhoods (and one which appears to pride itself on the alternativeness of its music, fashion, art and culture) the botanical survey is an unconventional mode of reading the city. Botanical meetings are identifiable by the sturdiness of boots worn, the all-weather properties of clothing and plenty of pockets, suitable rucksacks and the indispensable botanical items of hand lens, plant key and notebook. Passers-by look curiously as we pause at otherwise inconvenient points in order to examine the near microscopic botanical features that sets one species apart from another. At one point on Fanshaw Street, the debate centres on just how many hairs were needed to render a stem "glabrous". Moments later, our attention was diverted to the fern species obliviously curling over a roof edge three stories above. I was suddenly conscious of how little attention the group was paying to their non-botanical surroundings, whether the passing traffic or the passing pedestrians. Some stop and ask what we are doing. At one point on a later walk at Deptford station, having climbed a low fence into a restricted area to examine the vegetation in more detail, one passenger comments that he had assumed we were foraging.

Foragers and botanists are not distinct categories but they deploy, at different times, different values, knowledge and concerns. Botanical identification is a fundamental skill for foraging, while botanists' enjoyment of plants may well extent to their use as food. One botanist explained his frustration with foraging was not so much the practice itself but the ways the value of nature becomes reduced to human value and utility. Another noted how, when leading nature walks, she had seen a shift in attitudes to plants with the recent rise of popularity in foraging. She explained how the first question with which many members of the public are now concerned is, "can I eat it?" This hints at some of the subtly different values at work within these different forms of plant walking. Even within ecological science, "abundance" can mean various things (Preston, 1948). It can refer to the total number of

Figure 3.8: Botanical surveying at Walthamstow Wetlands. Source: Photo by author: 2017. Meetings are often regarded with curiosity by passersby and, with a shared interest in the presence of London's urban plants, surveys can easily be mistaken for foraging expeditions.

individuals of a species either globally or in a designated area; it can mean the number of individuals in proportion to other species, or it can mean the number observed. It can also refer to other taxonomic units, such as families or genera, and other key terms such as biodiversity or broader categories of vegetation or biomass. Different uses of the term "abundance" tend to describe different concerns or focus. In the case of this urban botanical surveying, abundance of individuals (within a species) is not the primary concern as much as is abundance of species themselves, defined by their presence within cartographic delineations. As the previous chapter explored, for urban foragers, abundance is a concept refined through a variety of parameters, even if perception of abundance is affected by the presence or visibility of certain plants. "Edible" abundance is constrained by material and legal accessibility, by the health, ripeness and distribution of species, the immediate context of where things grow, and the means to process, distribute and consume the potential foodstuffs in questions. Even seemingly simple terms can acquire nuance and a degree of local specificity. The likelihood of chemical or biological pollution is less of a concern for botanists, while specific taxonomic distinctions may be of more concern than they would be for foragers. Although rarely advisable, flavour can provide another means of identification. On one botany walk around the back roads around Blackheath, the sweet flavour and ruby redness of wild strawberries growing in a communal space provided a sensory interjection. A Medlar tree in Deptford and its already-bletted (or semi-rotten) fruits offered a point of conversation and delectation as we sampled its rich cooked-apple-like flavour during a pause in recording. In the shadow of the Olympic stadium in Stratford, two of us nibbled at some Brassicaceae as we recorded atop the greenway that cuts through the park, atop the northern outfall sewer on its way to Beckton. As we sat and ate sandwiches during our walk in Shoreditch, one botanist described the plethora of St George mushrooms he had recently collected in one of the Royal Parks. Several botanists were keen to stress that what they did was *not* foraging, instead taking particular pride in their scientific expertise, focus and contribution. For two conservation volunteers I spoke with at one City of London Corporation managed site, the rise of foraging was a lamentable trend as it, by definition, deprived others of the opportunity to enjoy the same or different interactions with nature. As explored above, some sites such as Tower Hamlets Cemetery Park consider foraging as a way into public appreciation of plants and botany. Food is a universally-shared interest, whereas scientific botany can seem, on first encounter, daunting and replete with a complex lexicon.

A challenge in botanical circles is to encourage a younger and more diverse generation into the discipline. Plant identification, systematics and classification remain important, even if undervalued skills within conservation science and other subfields of ecology. A decline in

skills in practical field botany is likely connected to a dwindling number of degree-level courses which teach these (Drea, 2011). In many instances, this is also connected to the shifting focus of research, from "botany" to "plant-science", shaped by the acceleration over the last two decades of advances in plant genetics. It is not altogether clear where expertise in botanical identification and field studies will ultimately lie – whether the university will maintain a monopoly of authority or whether it will be decentralised and occupied at the grassroots level. Bell and Sheail (2005) explore some of the history of the emergence of an ecological specialism in a UK context, highlighting the "fragility and fluidity" between expert and lay knowledge. Moves to encourage greater botanical literacy on the part of the public have already commenced, through initiatives such as "Wildflower Hour", a social media based initiative where users upload images of flowers and plants they have encountered during the week and ask questions to lay experts regarding their identity, status, ecology and natural history.

Advances in plant genomics have not only shifted the classificatory parameters, upon which botany had previously relied, but opened up vast new avenues for funding and innovation concerned with the most pressing questions of crops, agriculture and food. These questions of food and their potential solutions are generally not seen or understood as something emerging or contained within moments of botanical encounter. By the time they reach consumers of food, they are unlikely to appear botanical at all. Competence in the identification and classification of plants is no longer a prerequisite of working within the field of plant sciences, where research predominantly takes place at the microscopic or genetic level. To understand botanical recording activities as "citizen science", while in some sense correct, perhaps underestimates the importance of the expertise being deployed, and the repositories of practical knowledge and skills embodied by organisations such as the volunteer-based organisations such as the LNHS or Field Studies Council (FSC).

Interestingly, a decline in botanical literacy within scientific communities and wider publics is symptomatic of what some have speculatively termed "plant blindness" (Wandersee & Schussler, 1998; Wandersee & Schussler, 2001; Hershey, 2002; Allen, 2003). Contained within this compelling-sounding idea are several strands, ranging from a declining social and cultural appreciation of the role plants play in our lives, dwindling practical identification skills, and a cognitive inability to notice and process plants in our everyday environments (Ro, 2019). These considerations may be linked to shifts in terms of cultures of work, free time and leisure. However, the cognitive inability to notice plants, particularly in cities, and to differentiate and value them, is curiously reminiscent of Simmel's description of the "blasé" metropolitan attitude developed to cope with the multitude of stimuli that the city

presents its inhabitants. Despite our continuing reliance of plants and their products, contemporary urban economies do not necessitate familiarity with those plants or demand human attention as much as they would do in the context of hunter-gatherer societies.

Plants conservation receives only a fraction of the funding of other areas in conservation ecology, despite the critical role plants play in human and biological systems and the significant extinction threats many species face (Havens et al, 2014; Heywood, 2017). "Nonhuman charisma" (Lorimer, 2007) is an idea only subsequently, and still far less frequently, extended to plants (Head & Atchison, 2009) within cultural geography. The extent to which "curing" plant blindness, by informing and sensitising a citizenry to plants' presence and importance, will itself foster underlying changes to the ways in plants are practically valued is altogether unclear. Botanical transect surveys took me to various field sites, including the Olympic Park, Walthamstow Wetlands, and East India Quay, close to confluence of the Lea and the Thames (see Appendix II). I was able to observe my own botanical learning and accumulation of knowledge and found myself "overcoming" my plant blindness—or general botanical illiteracy—incrementally. At first, it was a question of simple noticing the presence of plants, or greenery, where previously I may not have done. In a built environment in which different stimuli vie for your attention, this was a notable step. Having begun to deliberately look for and inadvertently notice the city's plants, I began to differentiate. This was not a case of being able to identify species themselves but small pieces of botanical language and knowledge enabled me to differentiate morphological features, from inflorescence to vegetative features. Shapes would become clearer amid what were once solid blocks of green. Where I knew certain species to reside, I would return—as many foragers suggest one should—and observe difference through the seasons. The desiccated husks of umbellifers lining railway tracks on my usual routes in late summer—which I would have previously barely noticed— no longer seem disembodied ghosts but intimately tied to the once lush green and creamy white of the plants in flower in spring. Particular species became cognitively associated with places in which I first learned their names (although not necessarily where I first encountered them). This was not a pure didactic process – uptake of botanical information and detail was patchy, sporadic even and highly dependent on both immediate context and the unstructured honing of instinct *and* formal identification techniques.

This chapter has shown that through urban foraging, several modes of walking, meander back and forth past the marker placed by the Industrial Revolution, "when walking ceased to be part of the continuum of experience and instead became something consciously chosen" (Solnit, 2000:265). It is inherently caught up in an unresolved tension between conscious

thought and instinctive action. I found myself shifting across these divides as I learned how to identify and use more plants, trying to remain critically aware *and* immersed in foraging's experiential qualities. For many experienced botanists, identification is largely not a technical act concerned with small morphological details but relies on an affected awareness of, what they term, the "jizz" of a tree or plant – its overall impression and situatedness impacting the subconscious; seeing before *seeing*. The city, its topographies and events tend to insert themselves into the experience of urban foraging, no matter how familiar landscapes may become and be frequently utilised. One can only get lost in foraging for so long before the urban inserts itself back into the forager's consciousness.

4. Foraging memory, culture and imagined rurality

AD50

Some nights we'd go to the river,

sit on the beach, look out towards
the marshy islands of Southwark,

and beyond to the jungle that was Britannia,
teeming with spirits and untamed humans.

We'd try to imagine the world beyond the city,
that country a lifetime away

Bernadine Evaristo, 2001

4.1 Introduction

How does a city remember? What does remembering do to a city? Urban memory can take many possible forms and textures. Some of the most visible are the stone and iron monuments that mark skylines and around which inhabitants must pick their way. The paper and ink, and increasingly digital, textures of institutional archives gather together in a certain mode of memory-keeping, at once both public and hidden-away. For Maurice Halbwachs, "collective memory"—that is to say not individual biography but the shared set of experiences and reference points that bind groups together—"unfolds within a spatial framework […] we can understand how we recapture the past only by understanding how it is, in effect, preserved by our physical surroundings" (Halbwachs, (1980 [1950]). In his rendering of the city, Halbwachs remarks that "few social formations are at once more stable and better guaranteed permanence". While no doubt its built forms are integral to various bodies of collective memory in and of the city, such stability and permanence seem unfamiliar to London. In its contemporary guise, the politics of memory are inseparable from the concerns of the present. Yet, it is not immediately clear where we might locate different forms of "foraging" in London's memory, or how precisely contemporary practices relate to their past iterations. Foraging might be imagined alongside other forms of "intangible cultural heritage" (Groom, 2013). For example, each year Freemen of the City of London exercise their entitlement to drive sheep across London Bridge. What was once an elite, commercial privilege and important annual event in the medieval calendar has become something of a spectacle or curiosity[51]. Although no longer serving the same ritualistic or social purpose, it is

[51] The sheep drive is usually now led by a celebrity and used as an opportunity to raise money for charity.

a visible reminder of the enduring influence of the City of London Corporation and its guild-based systems of corporatist power. Contrastingly, more plebeian traditions such as "beating the bounds" (of common land) and "wassailing" orchards[52] have continued to be practised in areas of the city or have been reintroduced more recently. However, foraging—as the previous chapter sought to demonstrate—is as much a praxis of habit and mundanity as it is ritual and celebration. The everyday practices, particularly of the poor, are often overlooked elements of the city and thus excluded from its "official memory". Urban walking, to which foraging is intimately connected, also generates a series of particular modalities of collective memory (Rosenberg, 2012) but which may not leave visible or material traces in the city's record.

AD50, the poem above, emerges from the gloom in a gallery at the Museum of London at the Barbican, entitled "London Before London". The lines speak of the impermanent presence and malleability of landscape; landscape concurrently primordial and unimaginably transformed, grasping at a past that is both immanent and out of reach. It is part of a deliberately curated effort to unsettle fixed, essentialist readings of London and pluralise the voices through which the history of the city is told. While, "the archaeological metaphor is often used to give a spatial form to the past: it locates time in neatly defined vertical layers" (Till, 2005:10), here the archaeology of the city is a literal concern of the museum. The poem is displayed alongside a host of other facets of the pre and early history of the landscape of the Thames Valley. Information boards recount the lives of the "resourceful foragers" of Three Ways Wharf in Uxbridge, dioramas depict the duck-board assisted journeys of hunter-gatherers across marshes, while excerpts from Pepys's diaries describe the rediscovery of once drowned wooded landscapes in in Deptford. The Museum of London is not a passive collector and curator of London's past but an active agent in its reshaping. Cognisant of the archaeological and historical opportunities of major urban infrastructure projects (Carver, 2013), the Museum has been a key partner in the strategic planning and delivery of the archaeological and heritage components of Crossrail. Cutting its way through the material strata of the city, these include excavations at the nearby New Churchyard—or "Bedlam"[53]—burial ground revealing insight into the life of London across two centuries of its early

[52] The ancient tradition of communally visiting orchards on a given day and singing to trees in order to achieve a good fruit harvest that year.

[53] Due to its location on grounds once part of the Priory of St Mary of Bethlehem and which later became Bethlem Hospital. For the purposes of my own research, Bethlem Hospital became an incidental but recurring motif through its multiple institutional iterations: at St Georges Fields in Lambeth, where now stands the Imperial War Museum, and at Monk's Orchard in Croydon where the hospital stands today and in the gardens of which I joined a community apple pick in October 2016. The past does not only travel linearly through time or vertically through strata but also across urban landscapes.

modern history (Hartle, 2017). However, as Karen Till explains, to view the past archaeologically is a "discursive-material practice":

> People believe that a deep underlying "essence", an unchanging reality from the past, exists underneath the sedimented layers of history. But as they dig, the past becomes a ghostlike presence. The past is never settled, sedimented, neatly arranged in horizontal layers. Similarly, places do not have an essential set of qualities resulting from an internalized history, even though we may construct them to function in this way. Places are unique due to the lingering imprints of particular interactions that transpire" (Till, 2005:10)

It is perhaps the unsettled quality of urban memory and place that generates the idea of the "urban palimpsest" as a means inquiry into the city. Amid "the explosion of memory discourses at the end of the twentieth century", cultural theorist AndreasHuyssen, (2003:4) finds in the palimpsest a mean of interrogating the complex layering of imagined pasts and possible futures, especially relevant in the context of uncritical memorialisation. Rather than a historical version of memory, with its clearer delineation of the past, "today we rather think of memory as a mode of re-presentation and as belonging ever more to the present" (Huyssen, 2003:3).

On a different floor, the museum played host to *City Now City Future*, a year-long season of "events, exhibitions, creative commissions, talks and debates exploring urban change in London and around the world" (Parker, 2017). Running from March 2017 to April 2018, it coincided with the period of this fieldwork and the themes of nature, food and plants figured prominently among the various facets of the temporary exhibit. Familiar food growing and community gardening initiatives were nominated as potential "fixes" for London, the now renowned *Bosco Verticale* in Milan (Miceli, 2014) adorned displays, and one of the season's so-called "DIY Hack It workshops" centred on urban foraging. Echoing Huyssen, curated exhibits on London's past directed one's gaze towards the possibilities of the urban future and interactive games and displays encouraged visitors to critically consider pressing urban problems and potential solutions through play. Purportedly democratised and diverse visions of London in 2050 become refracted through curation, design and performance that linger ephemerally in and around the spaces, even after the season is over. The museum itself becomes a reflection and constituent of the city, a palimpsestic model in which it finds itself, contending with its own contradictions and multiplicity, and remaking itself in the process. On memory, De Certeau (1998:138) comments on the fracturing and dispersing of stories told about the city, by more and more people, "the dispersion of stories points to the dispersion of the memorable as well. And in fact memory is a sort of anti-museum: it is localizable". Thus the museum trying to collect more and more diverse memory of the city is itself a contradiction.

This chapter attempts to do several things. Firstly, it tentatively considers if and how foraging held a place in the social and economic life of the city predating more contemporary turns towards urban wild food. This is not to attach specific narratives to the history of urban foraging – but to seek glimpses of it, to confirm its presence, if not its prevalence. Some modest traces are collected in contemporaneous accounts of the city, in records of green spaces attached to the metropolis, in literature, and in images. The nature of foraging, its precariousness, its marginality, its unplanned-ness, makes for a fragmented (and largely absent) archival record, so tracing its praxis is uncertain and iterative. These traces are modest but meaningful, revealing an incomplete march of/toward modernity and an uneven dialogue between the urban and the rural. The chapter does not establish continuity between today's foraging and examples from the past but an interplay between the two through forms of memory (and remembering) and embodied cultural praxis. A city as variegated as London is not only in conversation with its own past but also with the histories of its inhabitants arriving from varied geographies. Movement and migration engender forms of dislocation and relocation, along with the arrival of new people, new plants and new ways of perceiving and using them. The second section deals with just some of the examples in which the fieldwork revealed how urban foraging can translocate personal, familial and cultural memory. "Translocation" can refer to simply the act of movement from one place to another but in this case the ways in which ideas, emotions and memories of plants and their landscapes can move with people. Foraging is one way in which "home" can be summoned, through its embodied practice, the encounter or incorporation of familiar plants, or through the flavours, foods, rituals and actions that arise from it. Yet this is not smooth or complete, where places—local and distant, urban and rural—are engaged in uneven and open-ended dialogue with each other. What becomes clear is that "culture" is not fixed in individuals or groups but adaptive and fluid, and reliant on the context in which it is practised. To imagine a pure "culture of foraging" is to underemphasise the importance of the ecologies and environments in which people find themselves and is the kind of essentialist reading that this chapter will dispute. The other side to this is that it also rejects the nativist inclination that sees foraging in London as somehow alien to an "indigenous" culture or landscape. The third section explores some of the ways in which learned or discovered knowledge about how plants have, are and can be used is repurposed or reframed to meet current urban needs and concerns. One point of interest here is the role of new infrastructures and technologies as means to transfer cultural and scientific knowledge between people, providing both opportunities and challenges, and connecting potentially distant people and places through knowledge and praxis. The final section of the chapter examines how urban foraging might be in some cases understood as a curated and performed rural imaginary– both emergent and vestigial in nature. While we cannot conceive contemporary urban foraging as bearing

uninterrupted lineage with some forgotten or overlooked past, we can position it within the ongoing dialogue between city and country, in which London is and has been entangled.

4.2 Signs of foraging in London's past

Archives can feel anathema to the once vibrant, verdant life of plants - matter processed and desiccated to the point that it holds ink, can be marked for institutional record and held in situ in perpetuity or until it might be useful again. While the practices of foraging tend to evade the kinds of institutional gaze that generate archival records, some traces can be found. Where to look? A helpful guide are key events or junctures with the potential to generate institutional records of foraging. Movements to promote public access to open space for health, recreation and wellbeing in London emerged in the second half of the nineteenth century and fixed the interest of emerging metropolitan authorities on the kinds of spaces in which foraging might have been practised. The following chapter will discuss the specific movement of *commons* preservation itself in more detail but the concern here is simply the kinds of practices undertaken across the city, not the ownership or governance affecting them. The acquisition and management of open spaces by the London Metropolitan Board of Works meant the details of their everyday function fell into its jurisdiction and extensive records are maintained at the London Metropolitan Archives (LMA). Secondly, twentieth century military conflicts present another series of junctures that disrupt park, common and open space management in London, particularly with the increased demand for accessible land on which food crops could be raised. This formed part of centralised wartime planning and provisioning strategies and so the National Archives at Kew, holding records on the Ministry of Food and other government departments, provide another point of consultation for the intersection of food, green space and metropolitan authority. However, before that it is worthwhile considering the geographies of food and foraging in relation to London as a city in transition.

a. "Wild" food in the transitioning city

Amid its long history, the concern here is London from around the late eighteenth century onwards and the period in which it transitioned from *city* to *metropolis* - an emergent, socio-ecological manifestation of urban modernity. This is as much a qualitative difference as it is a numerical or spatial one and, as Harvey (1996:410-411) explains, the advent of technological change enabled cities such as London to exceed (if not escape) the spatial limitations placed upon them by their metabolic dependence on the local, bioregion. While London had long been an exceptional—and distinctive—centre of political and economic power, only from the early modern period onwards do we see the geographical, socio-ecological and psychological distancing of London from its food-producing hinterlands. Historically, the soil fertility of the land used to supply the city with food was nutritionally replenished in a virtuous circle with

the city's biological waste ("nightsoil"). The nineteenth century saw the gradual dissolution of this model of the "organic city", with infrastructural challenges of dealing with large quantities of waste and the introduction of rationalised systems of public sanitation (Gandy, 2006:20). Despite the advent of this "metabolic rift" to which Harvey (1996) alludes (see Foster, 1999), and the subsequently emerging dichotomies of town and country (Williams, 1973; Wachsmuth, 2012), accounts of nineteenth century London reveal burgeoning informal economies of urban waste. Henry Mayhew's *London's Labour and the London Poor* (1851) offers meticulous and detailed portraits of the occupations undertaken by various strata of the city's lower classes. These included those tasked with recirculating organic waste, repurposing the reusable refuse produced by the city, and those such as scavengers, mudlarks and toshers, seeking value in the most overlooked or viscerally repugnant of urban spaces. These accounts demonstrate the gradual, multiple and incomplete progress of modernisation contained within the city in transition. Above all, Mayhew's concern was the people and trades of the street, including its costermongers and salespeople, and he documented the trade in fruits, plants and vegetables, as well as in meat, game, fish, seafood and live animals, in detail. If the collection of uncultivated urban plants was being undertaken at a notable scale, the volumes of *London's Labour* are a sensible starting point.

The "Groundsel Man" described by Mayhew in volume one of *London's Labour* (and mentioned earlier in chapter 1 of this thesis), while occasionally doing a trade in nettles for more affluent ladies, is more occupied with supplying so-called "green stuff" for feeding caged birds. Chickweed (*Stellaria media*) and groundsel (*Senecio vulgaris*)[54] are the two plants with which he mainly concerns himself. As the seller explains, "I gets the chickweed at Chalk Farm. I pay nothing for it. I gets it out of the public fields. Every morning about seven I goes for it." (Mahew, 1851:153) The groundsel, he gathers daily, with permission, from gardens in "Battle-bridge way"[55]while he picks nettles in Highgate. He explains in detail his daily-changing routes around different parts of the city, selling both to private homes and to tradespeople. He also sells, but does not cut, turf for sale to bird owners and shops. In terms of the extent of the trade, he points out:

> I've seed a matter of eight or nine people that sell chickweed and grunsell like myself in the fields where I goes to gather it. They mostly all goes to where I do to get mine. They are a great many that sells grunsell about the streets in London, like I do. I dare say there is a hundred, and far more nor that, taking one place with another (1851:154)

[54] Chickweed is an edible and nutritious green, often eaten by people. Groundsel is a noxious weed and poisonous to both humans and much livestock. Both grow successfully in ruderal disturbed ground and at the edges of fields.
[55] Now the area around Kings Cross, it was formerly a crossing of the now culverted River Fleet

Along with groundsel, chickweed and nettles, Mayhew classes those sellers of watercress, turf and plantain in the category of "sellers of green stuff", which was sustained by some of the poorest and most marginal of people. Both "ribbed" [Ribwort] plantain (*Plantago lanceaolata*) and great [Greater] plantain (*Plantago major*) were collected for their spikes of ripe seeds[56], mostly "in the brick fields, wherever they are found as the greater plantain, which gives three fourths of the supply, loves an arid situation" (Mayhew, 1851:158). He also notes how turf is cut for bird food (specifically for roosting skylarks) and goes on to detail the various locations in which the practice had been undertaken[57]. The districts he mentions—Shepherd's Bush, Hornsey, Peckham, Battersea—were short distances outside of the city in all directions; visibly still rural but entangled in urban socio-economic life. He notes too how certain areas, such as commons, greens and parks, had become off-limits for turf-cutting, including some of the best ground at Hampstead Heath. Figure 4.1, depicting *A peep of the metropolis from Hampstead Heath*, including a figure undertaking some form of plant gathering, possibly collecting reeds, indicates something of the distance of these districts from the city *proper*. Mayhew relates his own experience of accompanying a turf-cutter about his business in Highgate and Hampstead, describing:

> …in some parts of our progress nothing was visible but green fields with their fringe of dark-coloured leafless trees; while in other parts, which were somewhat more elevated, glimpses of the crowded roof of an omnibus, or of a line of fleecy white smoke, showing the existence of a railway, testified to the neighbourhood of a city; but no sound was heard except, now and then, a distant railway whistle (Mayhew, 1851:156)

Turf-cutting often involved trespass and the damage it caused (normally six-inch pieces removed with a knife, according to Mayhew) did not go without complaint and the incursions of fines – a cost of business of which cutters were all too aware. The suburban expansion of the city itself offered the opportunities for practising turf-cutting as plots laid out in green fields, ready for development, provided good quality turf and limited concern from land owners if construction was imminent. In the same vein, such development ultimately built over and privatised previously accessible green space, while the emerging interest in parks and commons rendered such extractive practices elicit. Mayhew notes how, to supplement incomes, turf-cutters also resorted to the collection of "groundsel, chickweed, plaintain, very

[56] Widely used through history for food and medicine (the leaves in particular with regards the latter for poultices to promote wound healing)
[57] Places mentioned include Shepherd's Bush, Notting Hill, the Caledonian Road, Hampstead, Highgate, Hornsey, Peckham, and Battersea, and Chalk Farm. According to Mayhew, it was banned in Hackney, as well as greens and commons such as Hampstead Heath (although it continued on its fringes), Paddington, Kennington, Clapham, Camberwell, Putney, and was not undertaken in formal parks.

Figure 4.1: *A peep at the Metropolis from Hampstead Heath*, by James Baker Pyne (1841). Source: Guildhall Art Gallery, City of London Corporation

Figure 4.2: Shallow Stream with a watercress gatherer, by TC Dibdin (1853). Source: NJ Barton, 'The Lost Rivers of London' (1992:121).

generally; and a few supply nettles, dandelion, ground-ivy, snails, worms, frogs, and toads" (Mayhew, 1851:157).

Of the "green stuff" with which Mayhew concerns himself in this section of the volume, the collection and sale of watercress is given the most attention. Whereas these other greens were generally destined for non-human consumption, watercress was collected for several different markets and market places. He speaks with a certain romantic zeal about those involved in the trade, such as the proclamation that "in no place in all London is the virtue of the humblest—both young and old—so conspicuous as among the watercress-buyers at Farringdon-market" (1851:149). While most of this supply arrived from outside London[58], a later publication explains that "owing to the large demand for water-cress in the neighbourhood of London, the plant is more largely cultivated in the counties bordering on the metropolis than in any other district of England" (AJP, 1896). Another writer, at a similar moment explains the state of London's food supply:

> The ever-advancing builder has appropriated the market-gardens, and run streets through the cornfields, so that besides a few dairy farms and watercress-beds, there is no area left for the produce of food within the only possible lines of defence (Gordon, 1889:38)

Figure 4.2, a watercolour contemporaneous with Mayhew's writing, depicts a lone watercress picker at work in streams abutting the North London line in Hackney, replete with stream train passing in the background. In the composition, attention focuses on the marginal but persistent practices of crop collection in the face of continuing urban expansion. Richard Rowe (1881:249) also notes this persisting urban cottage industry:

> I look with respect on the pretty cresses of the brook I see flowering white in my country rambles - on the shallow, oblong, artificial cress-ponds to be met with round London, especially in the neighbourhood of the eastern section of the North London Railway

Barton (1992:123) points out that the Hackney Brook (supplying these beds) "was culverted and incorporated into London's sewerage system in 1859-60…although the stream had disappeared, watercress beds survived in the area of Hackney Downs until the mid-1870s". Telling in Mayhew's account of his encounter with a "watercress girl" is in her reaction to their discussion of London's parks:

> I explained to her, telling her that they were large open places with green grass and tall trees, where beautiful carriages drove about, and people walked for pleasure, and children played. Her eyes brightened up a little as I spoke; and she asked, half doubtingly, '*Would they let such as me*

[58] Mayhew states, regarding Farringdon market, "the cresses are sold, by the salesmen or saleswomen to whom they are consigned, in the hampers they are brought in from the country",

> *go there—just to look*?' All her knowledge seemed to begin and end with water-cresses, and what they fetched (Mayhew, 1851:151).

The supply of "green stuff" to the markets, streets and houses was largely an affair of poverty—and some of the worst at that—and not in any sense an act of freedom or a reimagining Victorian urbanity. Indeed, the inability of the girl in question to conceive of the form and function of parks, demonstrates that not only were these likely spaces little used for provisioning of foodstuffs—as some have used them subsequently—but were also beyond the social and psychological horizons of many of the city's inhabitants. Botanically, watercress (*Nasturtium officinalis*) is revealing because unlike many herbs it cannot be dried for storage and only lasts a couple of days once picked, meaning distance, transportation and the available conditions (particularly chalk streams) shaped the geography of its supply. Its flavour and nutritional value, low cost and availability probably contributed to its continued cultivation and collection as the city continued to grow.

Gordon's (1889) "ever-advancing builder", appropriating market gardens reflects part of the change in the economic geography of London's food supply.

> Market gardening - the commercial cultivation of vegetables and fruits - was a concomitant of urbanization. As early modern London grew and prospered, there was increased need and desire for the trade…by 1700 London was almost encircled by market gardens that met most of its requirements (Smith, 1999:131).

By 1792, parishes within ten miles of London were supplying fresh produce to the city from around 8800 acres of market gardens (Smith, 1999:134). While this is no suggestion of self-sufficiency, the interrelation between London, its food, and its suburbs and hinterlands was not severed as the region continued to urbanise. Mayhew (1851:80) demonstrates this continued metabolic importance of the environs of London for the supply of fruit and vegetables in the form of a table (Figure 4.3) depicting the volumes of "home-grown" ("nearly all produced within a radius of twelve miles from the Bank [of England]"). By way of an aside, the production and supply of hops for the brewing industry was largely situated in the counties surrounding London, which supplied it with seasonal labour for harvesting (as discussed in the final section of this chapter), and remained economically significant until after the Second World War.[59]

[59] David Harvey wrote his PhD thesis on this very topic during his time in the Department of Geography at the University of Cambridge (Harvey, 2001:4)

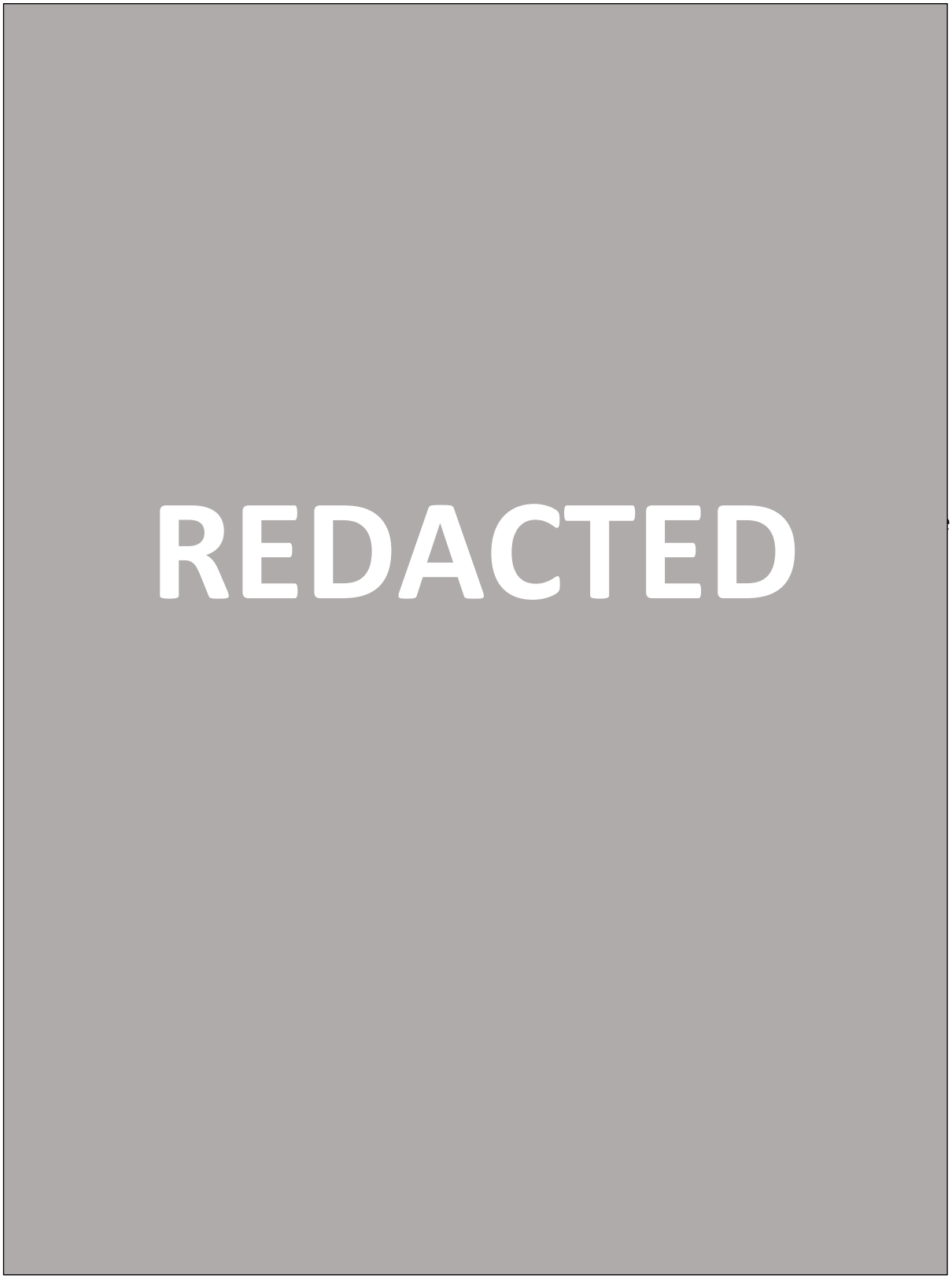

Figure 4.3: ‘A Table showing the quantity or measure of the undermentioned home-grown fruits and vegetables sold throughout the year, wholesale, in the Metropolitan "green" markets”’. Source: Mayhew (1851:80)

[60] Meteyard, E. (1872) *Times - Editorial and Opinon*, 27414: p.6

the Metropolitan Board from 1871 onwards—laments the heavy-handed imposition of the heath's byelaws to the point that botanists cannot collect samples there without risk of involvement of keepers (Half-Holiday Handbooks, 1881). Given the low value of the kinds of foodstuffs and produce that might have been collected from areas under the auspices of the Board of Works, it would not be surprising if keepers either overlooked such practices, failed to notice them or caused pickers to seek such materials elsewhere.

Epping Forest, which instead came under the management of the City of London Corporation by act of parliament in 1878, covers a much greater area than most of the other metropolitan greens, parks and commons. At the point of its incorporation, the forest was a fraction of the area it had once covered as royal hunting grounds, and had become constituted by a mosaic of landscapes on the urban fringes. In 1878, developed areas had emerged on multiple sides, including Walthamstow, Leyton and Leytonstone to the west, and Wanstead and Forest Gate to the south (see map, Figure 1.2, p50). This protected wedge of green space extended from urban districts of East London to the largely rural climes of Essex and provided logistical and administrative challenges for managing such a large and diverse area. While its protection meant further enclosure of the forest was prevented, and public access ensured, it also changed the relationship between residents and the forest. Those living adjacent to the forest (who were not commoners) no longer held informal extractive rights on the forest, and byelaws enforced by City of London employees brought to it a new regulatory regime. Not only this, the new found "publicness" of the forest, new rail access, and the expansion of the city itself meant people were coming from further afield to visit "the people's forest".

Preserved in the archives are the daily diaries kept by the forest's keepers, as well as the compiled correspondence of the forest's superintendent. The collection gives detailed insight into the quotidian life of the forest from the late 1870s to the 1930s. Much of this records the banal administrative exchanges of a civil servant or logs of the repetitive perambulations of a park ranger. However, a perusal of the archives indicate some of the moments in which the habits of residents and the concerns of keepers and managers surfaced. In a brief note to Forest Keeper Bynoth, dated 28th August 1914, the then Superintendent Francis Fuller McKenzie[61] states:

[61] Three generations of the McKenzie family acted as Superintendent of the forest, spanning over fifty years from its incorporation to the middle of the twentieth century (Alexander McKenzie (1879-1893), Francis Fuller McKenzie (1893-1932), Colin McKenzie (1932-1949).

> [I]t does not look well to see Forest Keepers in uniform gathering blackberries, there are plenty of other things that you can employ your time in, or if your beat is too small we can consider extend it[62].

This short excerpt perhaps indicates that while neither unusual, nor fully acceptable, collecting blackberries was a secondary concern in comparison to a lack of industry on the part of forest keepers or the possibility of presenting a bad image of the uniform.

The superintendent's correspondences respond to incidents or requests notable enough to have attracted his attention, so likely leave out many more day-to-day practices. In one letter dated September 1906, a Mr Linskill of Epping Green explains to the superintendent that his request to build gates on his property stems from an incident in which he had "10 or a dozen women in my garden stealing apples" and upon turning them out, "they fetched a lot of very rough men and they knocked me about shamelessly"[63]. In a later letter dating from March 1936, a Mr Jacobs of West Ham writes to apologise for picking flowers in Knighton Woods, saying he had not seen notices stating that it contravened the byelaws. He explains:

> I was always under the impression from an early age that flowers that were growing in the forest could be picked by anybody…it was my daughter's wish to go to the forest to pick some flowers as she has been in delicate health[64].

In a similarly contrite tone, Hellis of Dagenham writes in December 1936 to apologise, having been caught by a keeper "in possession of berried holly"[65]. In the same month, McKenzie was in correspondence with a Mrs Gowar of Chingford, again concerning the removal of holly. Apologetically, she agrees that, "we quite appreciate if everyone did the same, the forest would suffer". To this, Colin McKenzie replies, "if you will assist in telling people it is an offence against the Bye-laws to take anything from the forest, some good will be done"[66]. Mr Fuller of Tottenham writes in August 1898 to apologise on behalf of his son, saying "I…much regret that my son should have been guilty of breaking the trees and gathering crab apples on the forest against the rules". He pleads for some leniency, not least "the disgrace attending a summons, which I should feel most keenly, having been at one firm in the City for nearly 25 years"[67]. There is a distinctive seasonal pattern to these interactions, giving a small indication—whether through tradition, habit or opportunism—of how the forest's life and ecology continued to mark temporal change for residents and visitors. Holly

[62] London Metropolitan Archive, CLA/077/B/02/099/375
[63] London Metropolitan Archive, CLA/077/B/02/053/387
[64] London Metropolitan Archives, CLA/077/B/02/211
[65] LMA, CLA/077/B/02/211
[66] LMA, CLA/077/B/02/211
[67] LMA, CLA/077/B/02/013/190

continued to be cut for Christmas decorations, daffodils plucked in spring, and bluebells during the summer.

While no longer a "working" forest per se, forest keepers were employed to enforce various regulations applicable to the forest, to help the public, and to report to the different echelons of management of the forest. Recording daily logs of their activities and patrols was part of this administrative function[68] While much of this simply lists the routes around their particular "beat" walked of a morning, afternoon or evening's patrol, they are occasionally called upon to fulfil various forestry tasks or deal with incidents. They note the times at which they are set to work cutting and delivering wood to different households[69], collecting primrose roots or hornbeam seeds at different times of the year, and organising rabbit hunts. Hunting and poaching of rabbits and birds by members of the public (both for meat and for live sale) was a continuing and illicit use of the forest which caught the attention of keepers when encountering it. For example, one keeper's account in March 1916 on the Epping Town beat tells of an incident in which he and a colleague chanced upon a group of four men bird-catching. While apprehending two of them, the keepers were assaulted and suffered minor injuries[70]. Other incidents record more serious injuries received by forest keepers. On the whole, a more frequent infringement of the byelaws encountered by keepers was where animals, including cows, horses, and pigs, were illicitly turned out on the forest without license or were considered "non-commonable" species. The task of the keeper was to impound these creatures and look after them while they were in their custody. Although the diaries and letters provide valuable insight into the daily life of the forest on the fringes of the city, they do not describe a landscape in which wild food collection constitutes a significant function or utility, whether for domestic or commercial purposes. Given the size of the forest it is likely activities went unnoticed and overlooked but, with dedicated staff monitoring its extent daily, if it were being used in this manner, it would likely figure much more prominently in the official record.

c. War and provisioning

War presented an interjection in the life of the forest, as well as the functioning of other open spaces in London. The city's commons and their particularly open landscapes made ideal and proximate sites for practising troop manoeuvres and exercises (something for which they had also been used historically). While managing publically accessible green space, the City of London Corporation was not strictly a public body and therefore not necessarily subject to the

[68] The full series of Forest Keepers' Reports (CLA/077/B/07) and Forest Keepers' Diaries (CLA/077/B/08) are accessible at the LMA
[69] Certain people maintained rights to specific resources, such as firewood, after the forest's incorporation
[70] Beat 1 (Lower Forest), LMA, CLA/077/B/08/01/019

same jurisdictional control as spaces owned and managed by local authorities. However, the particular resources available in the forest did prompt some unusual requests. As mentioned in a BBC film segment looking at the archival records of the forest at the LMA, at one point during the First World War, the superintendent was petitioned for access to the forest for the acquisition of birch wood to be used in the manufacture of prosthetic limbs for injured servicemen[71]. Another letter from 1916 asks permission to allow a group of discharged Belgian soldiers to gather medicinal herbs and materials from the forest. This would include Belladona (Deadly nightshade, *Atropa belladonna*) for the extraction of atropine, which was at the time imported from elsewhere[72].

During the Second World War, the population was mobilised in various ways to secure a greater degree of national self-sufficiency in the provision of food and medicine. One such mobilisation was the establishment of "herb committees" coordinated by the Vegetable Drugs Committee[73] (Collingham, 2012; Ayres, 2015). These district-level organisations were tasked with coordinating the collection and processing of a range of wild British plants that could provide useful sources of pharmaceuticals for use at home and in the theatres of war, amid the privations of the conflict. Despite an internal 1943 memo at the Ministry of Food describing the VDC as "unbelievably inept"[74], reports published during the war show annually increasing levels of procurement from the 70 local herb committees. Of particular importance was the supply of rose hips (for its vitamin C content), Foxglove (for digitalin), Belladonna (for atropine), as well as horse chestnuts, dandelion, coltsfoot, among many others mentioned in the committee's reports and correspondence. A report from the Directorate of Medical Supplies on the 1943 collection of rosehips notes that 492 tons were collected that year, with certain areas of the country faring better than others[75]. It notes the challenge of establishing targets due to uncertainties about potential yields and availability, deciding instead on the arbitrary figure of 1 ton from every 100 square mile. It notes how harvests are affected by weather, transportation, and the interest of local educational authorities in participating. These developments uncannily echo contemporary concerns in the UK in securing food and pharmaceutical supplies in the event of disruption and demonstrate how in certain circumstances, local, botanical knowledge can be mobilised for geopolitical and biopolitical purposes. Although conducted across the country, local committees were rural in geography and no mention is made of local committees collecting in

[71] BBC Sounds (2015). 'Epping Forest, Chingford: Challenges of War', *World War One at Home* [Radio Series], 06 November 2015. Available: https://www.bbc.co.uk/sounds/play/p030ztlw Accessed: 01 July 2019.
[72] LMA, CLA/077/B/02/117/268-269
[73] A cross-governmental committee, organised through the Ministry of Supply and including the Ministry of Health, the Ministry of Food, as well as experts in botany and pharmaceuticals
[74] Internal memo from Magnus Pyke to JC Drummond of the Ministry of Food, National Archives, MAF/74/243/380
[75] Directorate of Medical Supplies (1944). *The 1943 Collection of Rosehips.* National Archives, MAF/74/243/371

London, other than those boroughs on the city's outskirts. As Sumner (2019) has explored, plants—including from wild and uncultivated sources—played a variety of critical roles during the course of the war. With the rationing of sugar, Women's Institutes were active in helping maintain food supplies, including in the production of fruit-based preserves (Summers, 2013). Film footage from Brentford in west London in World War I also shows

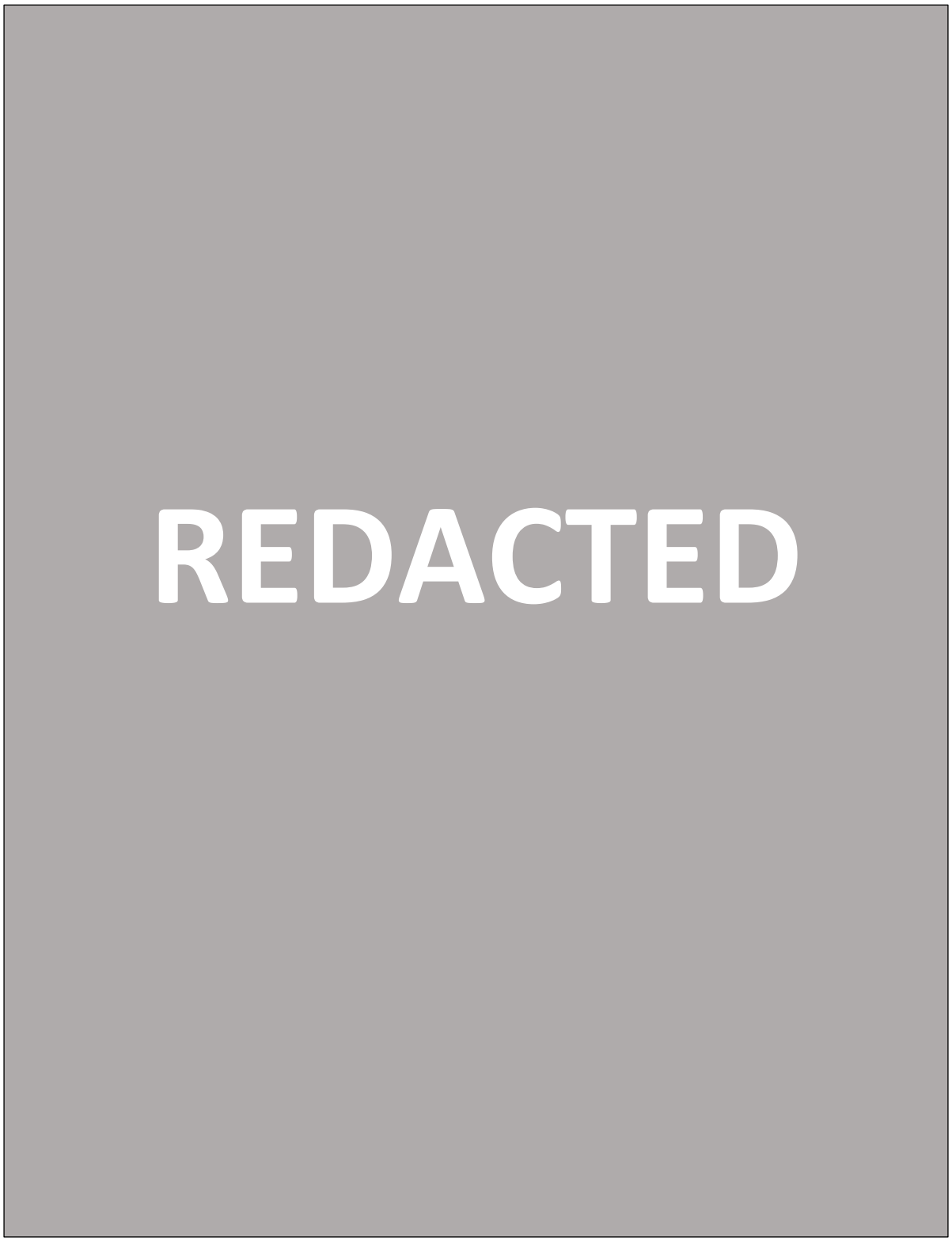

Figure 4.4: 'Hedgerow Harvest', Ministry of Food (1943), Source: National Archives, Kew

the mass collection of blackberries, organised by local institutions, in contribution to the war efforts[76].

Internal correspondence at the Ministry of Food show that, at least briefly, the potential to extend local collection to other wild food stuffs was considered[77]. Rather than central coordination, this resulted in the publishing of "Hedgerow Harvest" (see Figure 4.4), alongside a series of pamphlets, aimed at informing members of the public of how to collect and prepare the "wealth of foods in our hedgerows and fields for those who are in reach of the countryside". Judging by the language, the target audience was likely those suburban residents who could access rural areas, rather than local urban parks. The leaflet offers advice on collection methods, consideration for the land and the environment, as well as full recipes and details on specific processes for preparing ingredients. It is perhaps of little surprise that the impacts or uptake of this information is largely unknown. Evacuation of cities such as London brought many children into the countryside for the first time and into contact with wild-growing plants. A chapter in the novel *Goodnight Mr Tom* (1914) by Michelle Magorian entitled "An Encounter over Blackberries" describes the two evacuees, Willie and Zach, picking blackberries with local children for the first time and being warned off poisonous species and led between local picking spots. As Sumner (2011) explains, there was no "typical" experience of evacuation on the part of children and, while many found experiences of the countryside informative and eye-opening, it is unclear, but unlikely, that children returned home to make extensive use of newly acquired botanical knowledge in the city. A study of wild "famine" foods in the Netherlands during the Second World War suggests a greater uptake and botanical knowledge of wild food plants by those living in rural areas than in urban areas (Vorstenbosch et al., 2017) but nothing of the long-term impacts of evacuation (De Zwarte, 2016).

A book entitled "They Can't Ration These" by the Vicomte de Mauduit—a minor and somewhat eccentric French aristocrat and aviator—was written for a similar purpose to that of "Hedgerow Harvest" but with greater detail and considerably more elán. Like many contemporary foraging books, it reads as part cookery book, part field guide and is curiously provided with a forward by the former Prime Minister David Lloyd George:

> The British nation, which once contained a thriving and prosperous peasantry, has within the last century become a race of townsmen, banished from the fresh air, the sunshine, and the

[76] 'Blackberrying at Brentford' (1918), Ministry of Information film, produced by Wendy Davis. Held at the Imperial War Museum Archives, IWM311. Available: https://www.iwm.org.uk/collections/item/object/1060022793. Accessed: 01 July 2019.
[77] Letter from Magnus Pyke to G.R. Oake, Ministry of Food, dated 03 March 1943. National Archives, MAF/74/243/356

> green fertility of the countryside, to the confined spaces, the grimy bricks and mortar, the slums and mirk of crowded cities…" (Lloyd George, 2014:11 [1940])

He goes on to state his desire to restore "a juster balance between town and countryside", as well as bring back some urban "exiles" to the fields. This stark distinction of urban and rural in the context of wartime London is somewhat contradicted by the large-scale repurposing of open green spaces for food production. Through centralised, state-coordinated efforts, organised through the Ministry of Food and the London County Council, parks and commons, the grounds of hospitals and schools, as well as existing allotments and urban farms, were cultivated and directed towards supplying the domestic market with food (see Collingham, 2012). As records of the LCC show, such food production took a form of biopolitical priority over other possible uses of urban green space, particularly sport and recreation that requires large areas of space, and these priorities were quickly challenged once wartime hostilities had ceased. The potential of these spaces to provide useful and accessible wild food plants goes altogether unmentioned.

Although so far the chapter has provided instances demonstrating that foraging and gathering practices have formed some part of London's modern history, these examples do not describe an urban landscape in which "wild" food provisioning was an endemic or significant feature of the city's economy or ecology. In many respects, its exceptionalism is its interesting feature and the extent to which it contrasts (or not) with more commonplace food and plant provisioning practices. Moments of exception, such as the disruption in food supply caused by war, provide a glimpse at the imagined alternative for food and nature in London but the extent to which these are anything other than momentary interjections, offering anything conceivably more lasting, is without basis. The war years – and visions of informal economies of the past – remain a constituent part of the collective imagination of British nationalism. Pluckiness, adaptability, communality are all qualities seen to be embodied in the "blitz spirit" and form part of the foundational myth of contemporary Britishness. Recent invocation of such a spirit centres on ideas of self-sufficiency, thriftiness and ingenuity regarding food (Truninger, 2013) and tends to overlook the enormous logistical operations conducted by an empowered, centralised wartime government.

4.3 Migration and dislocated cultures of food and nature

An Italian term mentioned in the previous chapter—*arrangiarsi*—is a particularly apt description of the connection between people, food and landscapes. The art and ability of *making do* or *getting by* was the subject of an episode in a BBC series exploring the foodscapes of Italy, presented by the renowned chefs Antonio Carluccio and Gennaro Contaldo (BBC Food, 2012). *Arrangiarsi* describes an orientation towards the world; a willingness and capacity to make the most of what is available and not necessarily waiting for

permission to do so. They use it to demonstrate the means of survival employed by inhabitants and partisan fighters in the north of Italy during the Second World War. It describes the possibilities of both scarcity and abundance, depending on one's disposition, shaped by material availability, practical and embodied knowledge, and an uninhibited attitude. The episode not only explores the privations of wartime survival. Contaldo, while ambling through a meadow alongside an older Piedmontese lady, weeps as she calls out to him, instructing him what herbs he should pick. He explains to the camera how in an instant, he is transported to his youth and memory of his mother and grandmother doing the same. Plants and their collection can be powerful conduits for personal and cultural memory. For some such, a relationship to plants, food and community is indicative of a distinctive "culture of foraging". I encountered this term, or variants of it, on numerous occasions during the research.

Such "foraging cultures" are often contrasted to an endemic British cultural and geographical estrangement from food, the countryside and nature. Early and widespread urbanisation, enclosure, availability of and dependence on imported foodstuffs, concentrated patterns of land ownership, agricultural modernisation and intensification, and restrictions on access may all have contributed to popular divestment from such concerns (Spencer, 2011). Although foraging has been long been practised to some degree in rural areas of the UK (see Kennedy, 2013), restrictive legal regimes (Lee & Garikipati, 2011) and relatively low levels of ecological knowledge and specifically plant identification skills (Pilgrim et al, 2007; Robinson et al, 2016) may contribute to the low association between foraging and British cultural practices. Although a city such as London might be understood to contain an even lesser degree of "indigenous" foraging culture than rural areas, its spaces concentrate people, materials and memories from vastly different geographies and backgrounds.

Mention of "foraging cultures" surfaces in some of the reporting of the increased levels of picking (urban and non-urban) outlined in chapter 1, as well as during the field work itself. One trope relayed to me on multiple occasions referred to groups (of "Eastern Europeans") entering green spaces and "stripping bare" areas of their fruit and, in particular, fungi. I did not witness such a scene but it was notable because of the consistencies between accounts and the ways in which different cultural attitudes and knowledge were frequently invoked by way of explanation. In some cases, these descriptions appear markedly xenophobic, others were tinged with admiration, while others still were phrased as merely objective observations. The point here is not to dispute that such scenes have occurred—some of the green space managers consulted had witnessed this directly—nor that different national, cultural or ethnic groups might bear differences in their attitudes, knowledge and their engagements with plants. The point in question is whether "culture" is an adequate explanatory factor for why

people engage in such practices in London; practices which are themselves, as the previous chapter describes, diverse. Even where green space managers had witnessed scenes comparable to those regular featured in newspaper articles on mushroom picking, they could not necessarily give fuller details as it is generally considered unwise to confront large groups as such in open spaces.

One "cultural" explanation for the increase in foraging mentioned in different interviews and articles was the expansion of the European Union in 2004, bringing inwards migration from Eastern Europe – where foraging would be a more familiar and familial activity. However, there are a few considerations that undermine this perspective. Firstly, virtually no data exists to objectively corroborate this claim. Secondly, the correlation may be purely coincidental. More pertinently, it may be that the overall increase in the profile of foraging fuelled by writers, chefs and journalists has drawn attention to activities that were already practised by migrant communities (which also undermines or inverts a sense of "indigenous" cultural attitudes). A lack of information can easily be filled in with stereotypes or generalisations. Thirdly, of all the foragers encountered during the fieldwork, Eastern Europeans did not constitute a majority. Relatedly, the idea of coming from a "foraging culture" as adequate explanation for urban foraging is undermined by the fact that only a fraction of those many Londoners who come from such geographies actually continue to take part in foraging when in the city. As mentioned in previous chapters, while overall levels of urban plant and fungi gathering may be low, if there are cultural or national groups with a disposition to participate in foraging practices, any impacts may be more acutely felt in areas and green spaces near to concentrations of such populations of people. One example noted during the research was the case of Burnham Beeches, managed by the City of London Corporation, and the significant Polish community resident in nearby Slough. It is not altogether clear whether the mushroom picking that had been observed by members of staff was driven by a cultural drive or in response to the availability of open green space with large populations of edible fungi. As chapter 2 sought to explain, in the context of cities, the availability of plants and edible species is also, on its own, not adequate to explain the prevalence of foraging. From an anthropological perspective on hunter-gathering, it is revealing to note that, "the state of resources by itself is therefore not a good predictor for the observed social practice, while the inverse is more likely" (Widlok, 2017:138). There is a problematic connotation to reducing urban foraging practices down to an aspect of "culture", in so much as it risks removing the agency of those involved; foraging as articulated through various forms of cultural essentialism, rather than a particular choice taken in the midst of a city that provides varied possible diversions and activities. For the tableaux depicted above of large groups collecting indiscriminately from nature reserves, there is a degree of inconsistency between the idea of

picking as culture or tradition, as a *commercial* activity drive by economic forces, or as a form of opportunism.

Concern around the potential damage that plant and fungi gathering can cause to urban ecologies is not unfounded. Given the challenge of understanding the interplay of complex ecological processes, employing a precautionary principle—outright banning of foraging—is at least understandable, even if not necessarily proportionate. What it means to pick "sustainably" is dependent on ecologies at the landscape level and cannot be fully grasped by individuals or in-situ. With that in mind, it is problematic to imagine forms of "cultural" foraging, just as with other modes and motivations, as intrinsically either unsustainable *or* sustainable. Ethnobotanical accounts of urban foraging are valuable for understanding varied cultural perspectives on plants, their uses and the social meaning. However, they also need to do so with an awareness of the discussion in the previous chapter. This underlined that landscape is integral to cultural skill and perception and that "culture" is not a preordained quality or something acquired and enshrined elsewhere that can be relocated smoothly to an altogether different context. It is misplaced to regard one form of urban plant gathering as any more or less "authentic" as another, when all forms are inherently novel or emergent to some degree. Cultural authenticity can be persuasive and pervasive but is not per se an indicator of valuable, healthy or sustainable relationships between people, plants and wider urban nature. Heritage, memory and tradition *are* all important aspects of such relationships but what is perhaps more revealing is how food, plants and foraging are enacted in new geographies, provide connections between "local" but distant landscapes, and offer strategies for coping with urban life. As the final chapter will broach, accommodating such difference is integral to how foraging offers a template for alternative forms of urban living.

As we sat in the social centre for the Turkish Cypriot community in Haringey, a few things began to become quite clear from the haphazardly assembled group of older men with whom I was sharing lunch and a sprawling discussion of food, plants, culture and much more. The relationships between food, nature, people and place were central to their culture, they explained excitedly. Coming from largely rural, agricultural areas of Northern Cyprus—a politically liminal territory but one with a strong communal identity—foraging was an important provisioning practice and contribution to their diets and palates. As we chatted, one of the group beckoned over his nephew to join the conversation. The nephew explained how much he enjoyed hunting; how in Cyprus migrating birds would be lucky to fly over the island without him shooting them. I asked if he was a forager and if he foraged in London. His initial response was an adamant "no" but he then proceeded to describe the various things he would pick and collect in the vicinity of his house and route to work.

Figure 4.5: Selection of picked and pickled vegetables and leaves, gathered both in Cyprus and in Hackney. Source: photo by author (2017)

Language matters greatly when discussing land, food and culture. I needed translational help from Al, the intermediary and research participant mentioned in the previous chapter, who had brought me here. Names and places rang around the table—Kaleburnu and Larnaca—along with plants and foods both known and unfamiliar to me – gömeç (mallow – *Malva sylvestris*), mangallo (*Eryngium spp.*), molohiya (a dish made from *Corchorus olitorius*), semizotu (purslane – *Portulaca spp.*), yumurta out ('egg weed', Bladder campion – *Silene vulgaris*) capers, asparagus (see Figure 4.5 for examples of some of these).

My lack of Turkish was not the only limitation. There were no women present to share their perspective on the topic, making it difficult to corroborate the men's comments on the gender divisions involved in foraging. As they described it, women would collect herbs for cooking and medicine, while men would venture out further, hunting, collecting mushrooms, and other prized items. For the men present, the city in which they lived was not a proxy or replacement for the rural climes of Cyprus from which they and their families (many of which remained behind) arrived. They were keen to emphasise their particularly *Cypriot* cultural and culinary outlook. Despite political and geographical separation, they explained how they shared as much in common with Greek Cypriots as they did with the Turkish mainland, often sharing linguistic terms for food and nature specific to the island.

They expressed particular pride in the foods and crops from Cyprus, often preferring them to British equivalents. One explained that when he is back in Cyprus, he "forages like mad" but not as much in the urban context of London. With regards snails for example, he explained how he would be put off by those in his local London park, "over here, [it is] very dirty. In Cyprus it's clean". They explained how there is more acceptance back home to "go and pick anything". Theirs is a culture that cherishes the outdoors, they said, and local festivals celebrate particular plants and crops, such as oranges and artichokes. Indeed, they described how during the summer months, many members of the community would travel back to Cyprus and join hunting, harvesting and foraging trips into the countryside around their villages, in something resembling a pilgrimage or homecoming. They explained how knowledge of plants was passed on to community members through using and picking plants – they had all learned about plants in practice. They had concerns at how their children and grandchildren had lost touch with traditional food and cooking. The chef, Yusuf, explained that part of what he did was teaching Turkish Cypriot cooking in the traditional style. The loss or dislocation of knowledge, Al had said, was what drove him toward foraging. Wild food and foraging represented a facet of his heritage he could connect with, whereas he felt slightly uneasy at some cultural attitudes and repressive politics of Northern Cyprus. However, for him it was not merely a case of speaking to his elders and returning to Cyprus

(although he also did this) but also of making use of the other sources of information now available – website, guides, articles, and the spaces and plants available in the city itself.

Several of the men present had gardens and allotments, and one even rented a bit of land outside London. They explained how they spent much of their spare time outside, weather permitting, and planted familiar things from Cyprus or useful to their diets and cuisine. One described the multicultural qualities of the allotments, where people from different parts of the world grew the plants from home, and shared with each other. These spaces offered them respite, community and sites to "recreate", in microcosmic form, parcels of Cyprus from afar through the plants they grow and foods they eat. Therefore, this is not a case of foraging culture uprooted and applied seamlessly elsewhere but a remaking of those practices based on an urban landscape and its challenges, and a ways to remake that landscape *through* those practices. As we wandered around the streets of Hackney, Al, with an attuned eye to particular compositions of plants, was able to point out where Turkish Cypriot, Turkish, and Greek families lived, based on the botanical assemblages in their gardens. Some of the reticence that he and others at the community centre had to the label of "forager", aside from linguistic differences and its general inexactitude, is attributable to the importance of the village and its locally specific ecologies and economies. These give particular practices wider meaning, through cultural heritage, landscape ecologies, moral economies and specific uses and recipes that connect an isolated act of picking to wider social webs. Such meaning is not carried by individuals alone and their personal identities.

Upon departing the centre, Erim, the association's CEO, gave me a copy of a publication they had produced a few years earlier, recording the social and personal histories of migration from Cyprus to London. It covers a range of topics, including many of the things that might confront a recent migrant to London. Of these, the search for culturally meaningful foods and products might motivate foraging. However, global supply chains and well-established community amenities mean that better quality, "authentic" produce from Cyprus, or elsewhere, can be procured more easily from nearby shops than they can from edges of local parks (see Yöney et al, 2010). Politics, economy and transport have shrunk the distances between London and Cyprus over the last two decades, meaning migration that may have appeared permanent at first has become more fluid and dynamic, with people and things passing back and forth more easily than before. These mobilities interrupt scale and connect the urban realm of London with the rurality, not of its own hinterlands, but that of northern Cyprus. Foraging is one way to traverse these connected material and imagined terrains and knit these sites together. This search for culturally specific produce arose in other contexts too. Two months earlier, a chef, as she fried picked-that-morning elderflower in oil, exclaimed her fascination at how Turkish Cypriot women living near to her allotment would

make use of the vine leaves, growing roughly around the site and otherwise going unused. Meanwhile, two completely unconnected respondents (one a forager, the other a ranger) both described encountering Turkish-Cypriot women searching for the roots of particular plants on East London marshes, which may have been salsify or "yemlik"– *Tragopogon spp.* As explored in the next chapter, the aesthetics, vegetation and accessibility of sites may "invite" a certain kind of foraging, irrespective of the ownership or rules attached to them.

4.4 (Re)finding old ways in the city with repurposed knowledge

Chapter 3 drew some attention to work that has emerged from anthropology reappraising the theories of how hunter-gatherer societies learn, share and adapt knowledge of the environment in their foraging strategies. As Tim Ingold has sought to demonstrate, traditional ecological knowledge, and the means of acquiring it, are not simple didactic methods, instructed by older to younger community members. Knowledge is *walked* and *performed* through practice and embodied experience *within* landscapes. Skill is accrued over time, which itself is adaptive and adaptable – as opposed to a fixed set of foraging strategies that cannot shift with changing ecological conditions. Yet, the presence of a coherent and enduring community within an ecological landscape (even if not a settled or fixed territory such as a village) is a key element to the transmission of skill and knowledge between group members. So too, communal and familial relationships are key mechanisms for the acquisition of ethnobotanical knowledge within predominantly agricultural communities, even if gathering is not a primary form of subsistence.

In the case of cities such as London, in the absence of "traditional" communities and place-based systems through which ethnobotanical knowledge might be shared and practised, these pathways of knowledge sharing appear to become disrupted, dislocated and more diverse. The fieldwork revealed not a single "replacement" but prospective foragers and plant enthusiasts seeking out botanical knowledge from a range of sources. These are deployed in a variety of discursive and practical settings, and not always without tension or contradiction. Ethnic, linguistic and cultural communities do endure processes of migration and find coherent place-based expression in London but these translocations are not uninterrupted or smooth. Even for those who acquire skills and knowledge of plant identification, use and meaning within recognisable communities elsewhere, London's urban landscapes are at best analogous (rather than duplicative) to those in which that learning took place. It may also be that urban cultural and ecological conditions—including a warmer and drier climate through the heat island effect and proliferation of non-native species—provide a mimic for distant ecologies and geographies. Urban spaces and processes provide for ecological idiosyncrasies, such as abandoned glasshouses enabling lemons and kiwifruits to grow, as one forager explained to me. Nevertheless, to learn plants and food through *urban landscapes* involves

markedly different and diverse modes and points of reference, not least in the form of new technologies and social interaction.

For Katherine, a self-identifying "non-expert", access to appropriate, useful and accurate knowledge is one of the key considerations of whether she would forage more in London. She explained that she had been on several foraging walks organised by different people, as well as group walks via Urban Harvest, but was not always confident with the plants she would encounter. She recognised the dilemma within her urban foraging between its creativity and improvised qualities, and the fear of picking and eating the wrong thing. Like many, her motivations for foraging are multiple and as she states "I guess I am looking for an expert to tell me but I'd probably prefer to be more in a group where it's more equal and more of a shared endeavour".

She explained how she did not always get the sense that other foragers were always keen to share everything they knew:

> I meet these hardcore foragers and they just know so much! How have you got all this knowledge? And they keep it a bit of a secret […] they want you to know a bit but not too much […] because I'm sure they've studied for a long time, and I know some of them are freelance, they run events and stuff like that, so there is a competitive edge.

Sometimes, she noted, this can mean people trying to "out-knowledge" each other, as she put it. For her, she says, a digital app would make life much easier. "What I'd really like is an app on my phone and I can point at something and *go what is this?*" From what she explained, this was not a question of simply finding a shortcut—she described how finding new places and exploring is very much a reason for her foraging in London—but something to offer confidence and assurance in the first instance. "It's not going to work for everybody but for the people starting from zero, that's going to be a good way in…" She detailed how she had found herself being "in a wood and googling *how do you tell the difference between elderflower and this other thing?*" She recognises the technical nature of some of botanical identification and the time and dedication it takes to acquire the levels of knowledge from which pickers would have enough confidence to go out foraging. She mentions how, where spaces are deliberately cultivated or tended in order to be picked, labelling and signage would greatly help prospective foragers like her. Both Katherine's concern and hope for knowing enough to be confident in what, how and where she picks – along with a strong desire to be a part of a community – is demonstrative of the tension involved in potentially productive relationships with and within urban nature. The disciplining impulses that design, planning and surveillance imbue in cities such as London can have a strong effect on the individual, especially when encountering and valuing plants that are not "supposed" to be there.

Foraging and the interest it generates in botany and natural history may be a route through which to foster greater capacity in the face of declining taxonomic knowledge of plants. As briefly mentioned in the previous chapter, digital technology and social media may provide a route towards this. The ease of access to information on plants, food and foraging, whether through webpages, blogs or apps, has to some degree extended the range of people able and inclined to forage in city spaces. Yet, the greater the volume of information, the greater the possibility for misinformation. For Jason, himself a foraging teacher, it can be a source of surprise and frustration just how wrong plant identification can be on social media forums. "I'm always amazed by people spending hours chatting with people and sharing knowledge, it's quite nice…but people also share wrong knowledge" and get into arguments about it. However, he also notes how people tend to be quite cautious, "so I'm not sure it leads to many poisonings". Having also studied herbal medicine, researched ethnobotany and worked on compiling databases of different plant names and uses, he is all too aware of the uncertainty that can surround encountering plants in the wild. He explains that:

> …when I first started the courses, I thought I wouldn't have anything to talk about, anything to offer but soon realised people don't know what plantain is and they're quite interested when I spend ten minutes talking about the history of different plantains being used […] people's basic, average knowledge is quite low. The people who come I guess are interested in gardens or allotments or food in general.

As he points, out when it comes to being sure of the impacts of picking on plants and fungi, there are often claims unsupported by scientific evidence, not least because "there are not many botanists in the world and far fewer mycologists". When in a position to instruct others while on a walk, he explains, "if there's something I'm not sure about, just be honest and say I'm not sure". He does not speculate on the safety of specific spaces and individual plants but, "I'm not going to tell everyone to eat it if I'm not 100 per cent sure that it has a *safe tradition* and *there's no cases of poisoning*". In his own view, many things could have the potential to improve the uptake of knowledge – institutional support for acceptable practices, access to green space; and sees the possibility of how trends and more diverse plant and food recipes in newspapers can filter down. His own plant knowledge was gleaned from various contexts. Working as a professional picker for a company supplying wild ingredients to restaurants was a key component and meant a responsibility for the safety or others and the business that he picked correctly, as well as training others to do so. "You'd have to pick a lot of a plant each week, so you get to know it well without even trying". However, his interests in mushrooms, allotment keeping and vegan food stretched back into his teenage years. As he explains, foraging offered a different way of learning:

> It was really refreshing to learn by touch and taste and smell…really experiential learning and remembering stuff not by the page in a book but where it actually exists in the world…it's a very different type of learning…it's what I really enjoy about foraging…

As the previous chapter outlined, different types of urban foraging articulate botanical knowledge in different forms. Organised foraging walks provide one means through which a range of botanical, culinary, medicinal and cultural knowledge can be shared but tend to be one-off or infrequent undertakings that impart only a certain amount of information. They also offer only partial insight into how to unpick or read urban landscapes, with reference to the history of land use, ownership and rules governing spaces. In some settings, community mapping exercises—often understood as a form of "commoning"—provide literal cartographic guidance to the hopeful picker where they can find and pick edible species. For reasons not altogether clear, mapping tools and activities have had limited resonance and uptake in London. This might be explained by the size and nature of the city itself, proprietary attitudes to spaces and plants, limitations to the mapping itself, or a prevailing attitude that urban foraging is best learned through praxis. Meanwhile, forest schools are an avenue through which botanical identification skills and knowledge—whether to encourage foraging or to prevent poisoning—offers a still nascent but potentially valuable, more formalised method of teaching young urban denizens.

Although urban spaces can be fractured and challenging to read, their opacity can also provide a fertile ground to experiment and *re-find* practices learned and unlearned elsewhere or at a different time. The "unscripted" qualities of a city's unintended or unattended flora and vegetation provide a context in which individuals and communities can find space to re-write how those plants can and should be imagined and used. It is possible that the very uncertainty of a city provides a freedom and space to interact with plants than more "traditional" settings of/for foraging—wilder or more rural—where ownership and function is more clearly demarcated and disciplined. Although ethnobotanical knowledge, tradition and practice may well inform—and to some extent justify—urban foraging. Urban landscapes have the power to disrupt, reformulate and reconstitute such knowledge and, in the process, be altered materially and socially *by* those practices (even if in small or imperceptible ways). This form of knowledge transmission or generation, might be understood largely in reference to the landscape and the plants themselves, rather than a community of practice functioning within or through these.

4.5 Creativity, aesthetics and foraging as performing *rus in urbe*

A feature amid the milieu of foraging in London is the pronounced involvement of artists and artistic practice. This is partly attributable to the number of those involved in the creative industries in the city, and that when art installations, exhibitions or interventions centre on

urban foraging, they garner particular attention and promotion. However, there is also something of the materiality and image of urban foraging that lends itself to elements of artistic practice. On the one hand—as many of its proponents suggest—foraging involves a marked degree of experimentation, with plants, with spaces, with flavours. By extension, the transgressive aspects of foraging—be they spatial, legal or cultural—align with the modus operandi of some artists aiming to explore boundaries and social norms. The very notion of picking wild-growing plants in a city is an act of non-conformity and a rejection of the spatial ordering of the food system and the cultural duality of the town and country. However, on the other hand, in a city increasingly oriented around the creative economies, such informality and cultural non-conformity are commodifiable qualities and the arts are thus potential vehicles for capitalist accumulation. The juxtaposition of foraging, as a practice associated with rurality or wilderness, conducted within urban landscapes is not necessarily as powerful or jarring in a city in which the juxtaposed and jarring are sought-after aesthetics in the circulation of images and ideas.

As the following chapter on the urban commons examines in more detail, the landscape aesthetics of London's historic commons were desirable characteristics for affluent residents in the city's burgeoning suburbs of the nineteenth century. The mix of heathland, woodland, grassland and fluvial ecologies, their varied topographies, a lack of formal landscaping and the absence of fencing or structures provided unintentional but valued vistas—reminiscent of distant, wilder places—proximate and accessible alongside the conveniences of the city. It is important that one aspect to this *rus in urbe* was the landscape form itself – nature as viewable and viewed, and ultimately containable (whether on canvas or from the perspective of individual's gaze). This means the emptying out of landscapes of people and activities which threaten the fabric of the landscape in question or which fail to conform to its imagined form. In the opening essay of his collection *Landscapes*, John Berger (2016:4) describes the scene of a marketplace in the Polish city of Kraków:

> Other sellers – all of them women – have come from the outlying villages with their own produce in baskets or bucket…
>
> Lettuces, red radishes, horseradishes, cut dill like green lace, small knobby cucumbers which in this heat grow in three days, new potatoes, their skins, with a little powdered earth on them, the colour of grandchildren's knees, stick celery with its cleansing toothbrush smell, cuttings of *leveche*, which the men, drinking vodka, swear is an aphrodisiac for women as well as men, bunches of carrots swapping fern jokes, cut roses mostly yellow, cottage cheese, which the rags pegged to the clothes line in their gardens still smell of, wild green asparagus that the children were sent to look for near the village cemetery…

> … No two women wearing the same kerchief. And each one of them has found, as she bends down to cut chives or pull out dog-tooth weed or pick red radishes, her own way of protecting, of favouring, the small of her back, so that its intermittent aches do not become chronic. When they were younger it was their which absorbed the shock, now it is their shoulders

In his inimitable style, Berger brings to life those embodied practices and sensory atmospheres captured in the landscapes of Gainsborough, Morland and Millet, connecting the distant places in which goods were picked to the immediate surroundings of the marketplace. These specified generalisations (Becker, 2002) bring the mute figure of the peasant (woman) out from the canvas and, in the process, recast landscape itself as a more diffuse and generative framing than the narrow confines of landscape painting. Unlike the Victorian gaze and its taste for a romantic wildness to contrast the pollution and monotony of the city, this is to view landscape as something acted (upon and within) and not only as something to be viewed.

For many of those approaching urban foraging in London from the perspective of the arts, it provides a medium through which landscapes might be (differently) viewed and performed. As the next chapter discusses, an increasingly frequent refrain, exemplified by the historian Peter Linebaugh, is the move from the commons as fixed spatial orderings to *commoning* as social practices, bringing worlds into being. Company Drinks began as a project from an artistic collective. The careful curation and design of its information and promotional materials is indicative of this history. Its initial rationale was to connect the social history of East London—and East Londoners themselves—to the seasonal labour employed in the hop gardens and orchards of Kent. There, an afternoon in September, we sat sheltered from the rain beneath heavy-duty gazebos, on the gentle slopes of Scotney Farm, just outside Lamberhurst. The crowd was smaller than previous years I was told, no doubt deterred by the inclement weather but jokes and laughter rang around the tent nevertheless. Aged hands worked quickly and deftly, expertly removing the fragile hop flowers from the leaf and stalk which, if left in, would spoil the flavour of the tonic for which these were destined. These were subtle skills learned long ago but resurfaced along with family stories and community histories through the “Gone Picking” project. The farm itself, accommodating to the whole enterprise, continued to function while we there, happy for us to retrieve armfuls of bines before they reached the machinery undertaking the same task as our manual pickers, albeit at a far more industrial, if not industrious, rate. The handful of bins the Company Drinks group was asked, and managed, to fill amounted to a tiny fraction of the hops the farm produces but would contribute a key flavour to a tonic that, once brewed, bottled and adorned with beautifully designed labels, would be shared and sold in all manner of locations across London, including events, exhibitions and shops. Despite the attention-grabbing branding, the

experimental qualities of drinks-making, and the playful, provocative nature of its approach, Company Drinks tends to eschew many of the trappings of the "creative economy". It is not an organisation searching for scale in a conventional economic sense but rather directs energy towards particular places, people and products, demonstrating the socially and economically *possible*. It has endured, despite the inherent constraints of funding in a period of austerity, and it has resisted the temporary and precarious nature of creative "interventions". This persistence and the capacity to build an enduring form of social organisation—by focusing on things as modest as hops and weeds—is a result of the prosaic but essential tasks of organising logistics, booking transport, providing furniture and shelter in the event of rain, arranging lunches, and making sure everyone gets home safely. Turning communal practices into enduring community may draw inspiration from creative ideas and radical thinking but are made to work by turning up and getting on with things.

While the Gone Picking project connects and reveals London's past flows of people and plants, it would be a stretch to imagine it as a substantial reengagement with the countryside. The periodic trips to the hop gardens and the fruit farms are valuable in and of themselves but are not of the intensity or frequency that might have fostered profound economic connections in the past. The rural in a sense becomes a conduit for rethinking the urban, and less so the other way around. When traditionally rural activities such as collecting herbs and botanicals are recreated in London (as was the case for the London herbal created for the *City Now, City Future* exhibit, see Figure 3.3), this in and of itself does not signal the redemption of the rural. One of the locations in which botanicals for Company's sodas have been is sourced is *Phytology* at Bethnal Green Nature Reserve[78]. Set back from the busier streets of Bethnal Green and the railway running above, one could easily step inside and forget the surrounding city. Although there are external facing hoardings signalling the space, it is only really upon entering that one can appreciate the site's curation. At the western end, a dedicated physic garden provides dozens of native, medicinal plants and space for teaching and making products. Irregular paths lead visitors through the rest of the space, opening out into a seated area and tree-covered sections further along. At the time I visited, passing through the woods would activate an audio installation of poetry to be experienced in surround sound. Artists in residence curate varied exhibits, events and walks during the summer months in which *Phytology* is open, while the billboard speaking out to the city on its southwest corner hosts changing displays from different artists. As the *Phytology* website describes it, over a period of 5 years, it has become "a cultural institute and community hub for research across the arts

[78] It has not specific protection but was named this by the informal community group that originally sought to protect, with the understanding that the name might impart an added degree of prestige and possible protection.

and sciences". Revealingly, in describing the site's history and purpose, the website also explains how:

> The area's rural past is now invisible through most of the borough. The Bethnal Green Nature Reserve is a rare example of a place where it is still possible to have a sense of continued history.

The area had been occupied by a large church, constructed in the mid-nineteenth century to serve the overcrowded and sprawling neighbourhood, until it was destroyed during the Second World War. Left for several years, as with many such plots, the bombsite ecology drew the attention of local residents who took it upon themselves to clear the site for use as a local amenity. Having been fenced by the council in the 1970s, nearby residents' associations become the site's custodians in the 1990s. While the space may provide the opportunity to imagine the area's rural past, it is difficult to countenance the idea that it bears a continued or seamless life. Perhaps more so, it is emblematic of the ruptures and dislocations of the area's history, articulating the cultural and material strata that lies beneath and within. When the physic garden was established, understandably concerned with the land's contaminated soil (which according to Michael, the founder of *Phytology*, contained high levels of heavy metals and pollutants), organisers brought in clean soil from elsewhere to ensure the future safety of plants collected and consumed from the site. Replacing the soil itself is perhaps the ultimate signal of a site that has come about from both deliberate and unintended processes, and in which a markedly composite (but no less "authentic") urban nature emerges. While the site certainly evokes aspects of a rural past, this is a necessarily staged and performed rurality, in which elements of the material aesthetics, botanical presences and communal organisation traditionally associated with the countryside are amalgamated and repurposed in and for the city.

For Brazilian artist and researcher Jorge Menna Barreto, London in 2017 provided a location for exploring the interconnections between agroecology and site-specific artistic practice, having participated in the São Paulo Bienal the previous year. His *Londelion* was commissioned by the Fundação Bienal de São Paulo alongside the Serpentine Gallery in Hyde Park, as part of its Unwritten Handbook series. It consisted of embedded research across two months with chefs and growers around London and outside the city, and a public event exploring the interconnections between people, food, landscape and place. I arrived at the event amid the later summer heat and having joined a community foraging walk and fruit pick earlier in the day. The shaded outside area of the Serpentine, along with the adjacent lakes, assuaged the temperature of a park full of activity. The event publicity asked, *What can we learn from the wild?*, and focused on the possibilities for wild edible plants to connect people to place. The afternoon consisted of a panel discussion, a chance to sample the dandelion (*Taraxacum oficinale*) ice cream developed for the event, a botanical drawing

workshop, and a foraging walk around the park (led by an instructor I had spoken with elsewhere during the research). As pertinent as the questions raised through the research and event—from where and how our food arrives, who grows it, how we value the edible plants enduring or thriving in urban environments—its site-specificity was also a time-specificity. Its meaning persisted only as long as the artist and his traces remained. While those consulted in the event and the period of residence held deeper connections to their landscapes, the artistic intervention per se lacked any "site-specific" roots or resonance. Another artist, Richard, who founded the Alberta Fruit Commons project in Kennington, was also in attendance. In contrast to *Londelion*, the Albert Fruit Commons is not an "intervention" as such but a lasting community-oriented effort to connect local neighbourhoods to food, trees and each other in the long-term. The dandelion ice cream shared among the group of 40-odd attendees, while itself delicious, was emblematic of both the potential ephemerality of the arts and the challenges of urban landscapes. Although, as the programme suggests, dandelion "grows freely and spontaneously in Hyde Park", for reasons of "health and safety", the plants used in the recipe were imported from a farm outside of London. Not only that, the park itself is owned and managed by the Royal Parks, in which picking and foraging are explicitly prohibited. The attempt to foment connection between people, plants and landscape thus overlooked the rules and complexity of the very park itself. An arguably more revealing ensemble of more-than-human relations was taking place only a couple of hundred yards away, with a host of visitors attempting to feed the assembled ring-necked parakeets who have themselves set up residence in the park. Affects of delight and disgust swirled around the scene as I passed, with assorted pigeons and other avian species jostling for the same food sources intended for the parrots. As I made my way out of the northern edge of the park onto Bayswater Road, I noticed an older gentleman, wearing a wax jacket, subtly stooping to collect the sweet chestnuts (*Castanea sativa*) that had fallen on the paths. Walking alone and fairly swiftly, he appeared familiar with the park, the nuts a welcome, but not intended, addition to his passing.

4.6 Conclusions

Reticence to call oneself a "forager" was not limited to those minority groups for whom the term did not translate well or who rejected this form of labelling. Some, particularly among those joining walks for the first time, saw their own activities as too modest to warrant the title, implying that such a designation must define a greater proportion of one's life, history or attention. Yet, as noted above, even among those communities and cultures for whom foraging and gathering *are* important facets of their lives and livelihoods, it still only occupies a fraction of their time. For many of the non-British people (particularly other Europeans) I encountered picking fruit or nuts in parks and open spaces, it was often with a

certain bemusement that they explained their surprise at how little would be picked otherwise. In those circumstances, it was less a question of "cultures of foraging" generating an impulse or drive to go picking but rather providing knowledge and disposition when wild food opportunities are available. The dozens of mature sweet chestnut trees that grow in Greenwich Park afford another such opportunity to forage (although to do so is technically against the rules of the park). By September or October, it is a common sight to see many people gathering chestnuts there, many of them families of Chinese heritage. The mother and daughter willing to speak with me on a quiet day, early in the season, explained how they had been going to the park for many years and would cook the chestnuts in various dishes. *Castanea sativa*—the European Sweet Chestnut—is not actually native to China (and itself a Roman introduction to Britain) but provides an adequate substitute for other species and are not for specific ceremonial, ritual or traditional purposes but general culinary use. While chestnuts are available in many shops, the convenience, opportunity and usefulness of those growing in the park has fostered some cultural practice in itself.

For a number of those more committed foragers, part of their praxis is dependent on (urban) foraging remaining a marginal concern. The relative absence of a prevailing "foraging culture", while something indicating a relative distance from nature, also provides the conditions in which edible foods are not over-extracted and that botanical foraging knowledge is commercially useful. There may also be something appealing in the counter-cultural and exceptionalism of urban foraging, ascribed by Richard Mabey. One interesting observation from the fieldwork is how frequently people sought some reasoning or "justification" for their foraging practices in personal or cultural histories that might set them apart from the kinds of hedonistic, extractive or "hipster" dispositions one might encounter in the milieu of a "creative city". There is inherent tension caught in this search for "authentic" urban experiences that allude to subsistence and provisioning from markedly different geographies or time periods.

This chapter has gently explored the question of whether London, as a city, may have accommodated plant foraging for food and subsistence during its modern history, and what this means for its "foraging cultures". Following the work of Tim Ingold, discussed in the previous chapter, cultures, knowledges and landscapes are inextricably connected. As *culture*, urban foraging should not be imagined as something that arrives from elsewhere but that comes into being through the landscapes *in* which it is practised. Naturally, ethnobotanical knowledge associated with other geographies is powerful and meaningful but this chapter has observed three things: that knowledge is altered and reformed through urban landscapes, that those landscapes are shifted through the agency of the people and plants involved in foraging, and that distant geographies become intertwined through the performance of this knowledge.

Archives are fragmentary by nature, collecting much—but not all—of the written and documented records of the city. For an activity as liminal and overlooked as foraging, the likely institutional records are even more partial and only fragments of historic urban foraging practices emerged from the archives and fieldwork concerning London. Although informal economies have occupied an important place in the history and formation of the city and its people, plant gathering can only be considered marginal to even these. Entering the archive in search of such pieces of evidence mimicked aspects of urban foraging itself, slipping between jurisdictions and on the hunt for things that, while useful and potentially valuable, were not supposed to be there. So too, it resembles the rifling through archives and literature that Richard Mabey describes in his own foraging ventures, in search of recipes, use, histories and language. Part of this relative absence indicates a distinct dislocation of ethnobotanical knowledge through urbanisation – both movements of people and the transformation of spaces. Those seeking to forage in London today are increasingly utilising a range of sources and modes of gleaning knowledge, which is significant by the absence of a singular or coherent community of praxis through which embodied knowledge can be practised and developed. Foraging in London represents a particular idea or articulation of the rural—the *rus in urbe*—which has long been an aesthetic trope for and of urban nature. Yet this is always a simulacrum or stylised version of rurality, one inherently with the city in mind. That is not to detract from its efficacy in generating ways for people to learn about and engage with plants but they do not do so with an automatic or intrinsic mechanism for wider transformation of the food system. Imagining urban foraging as something more than individualistic modes of physical and mental subsistence—of making sense of a landscape in constant flux—it requires attention to building on novel forms of communal and cultural life. This need not mean trying to replicate economies or "commons" from other times and places but understanding the qualities that make such strategies applicable, useful and valued in place and time. The following chapter explores what foraging means for the "urban commons".

5. Unpicking the urban common(s)

The bawling song of solitary boys,
Journeying in the rapture o'er their dreams,
Haunting the hedges in their reveries,
For wilding fruit that shines upon the trees;

John Clare, 'October'[79]

Autumn comes laden with her ripened load
Of fruitage and so scattered abroad
That each fern-smothered heath and mole-hill waste
Are black with bramble berries – where in haste
The chubby urchins from the village hie
To feast them there, stained with purple dye

John Clare , 'Autumn'[80],
The Middle Period, (1824-1836)

The "Peasant Poet", John Clare, is widely recognised as offering an unparalleled account of English rural life amidst the tumult and transformation wrought by eighteenth and early nineteenth century enclosure. His works are partly unparalleled because of the paucity of such contemporary accounts in circulation. Clare's work was not only posthumously lauded but during his lifetime he gained the patronage and acclaim of the wealthy: rural landowners and cultured urbanites alike. His story offers an inviting segue from the imagined "rusticism" of today's foraging in London to a discussion of the entangled ideas of the (urban) commons increasingly running through popular urban discourse, scholarship and practice.

To begin, the chapter outlines the place of "foraging" in the history and management of the commons. Foraging occupies a largely liminal, and contextually dependent, space between the formal and customary rights associated with common and waste land in medieval and early modern rural society. While offering a degree of self-sufficiency and freedom to the rural poor, foraging in, on, or from the commons was dependent on patronage, reciprocity and moral economies fixed in the local, personal sphere. Importantly, common rights were not abstract claims or claims to the abstract but established legal-political regimes of land and resource management. In its second section, the chapter begins to unpick three distinctive trajectories of commons scholarship and adds an outline of the overlooked but pivotal history of the nineteenth century commons preservation movement. As opposed to the setting of the

[79] From 'The Shepherd's Calendar; with Village Stories, and Other Poems' [1826]. In *John Clare: complete works.* Hastings: Delphi Classics, 2013: p476
[80] From 'The Middle Period' [1824-1836]. In *John Clare: complete works.* Hastings: Delphi Classics, 2013: p851

English countryside, this struggle was a markedly urban affair, amid the expansion of London as a city and of metropolitan authority. Not so easily read as a conflict between landlords and peasants, the preservation movement enrolled and entangled a range of groups and actors in the advancement of "protecting" London's commons and in the emergence of new forms of public space and urbanity. Rather than constituting mere vestiges in the cartography and toponymy of contemporary London, these developments continue to inflect and inform interactions with public space, through an aesthetic, ecological and regulatory legacy. Leading on from this, the chapter addresses two divergent experiences of these historic processes through the examples of Walthamstow Marshes and Hampstead Heath (see Figure 1.2, p50 for a map depicting these and other sites included in the research). These extensive green spaces provide multiple functions, including as sites of special scientific interest (SSSI) but came to be preserved as public amenities through divergent processes. Hampstead Heath was preserved and extended as a focal point of London's commons preservation, driven by elite interests and concerns. Walthamstow Marshes were preserved as much through neglect, processes of industrialisation and their awkward topography, and today retains a particular distinctiveness and renown as part of the Lower Lea Valley. In both locations and their vicinities, foraging is practised today, and in both locations it is done so largely in contravention of the byelaws regulating the sites. People are drawn to these spaces to pick because of the ecology and presence of edible plants, their accessibility, and for the particular cultural aesthetics of nature that former common land can represent to urban inhabitants. The final section of the chapter addresses where urban foraging might sit in the more recent return to the (urban) commons as a nexus of potentially radical urban political and economic transformation. Such scholarship and activism often draws inspiration from historic struggles against enclosure without recognising the historiography of the idea of "the commons". In so doing, it overlooks the place-specific dynamics of commons, the enduring substantive (not only symbolic) relevance of historic enclosures, and the underlying politics at work when "the commons" are invoked as a universal, call-to-arms.

John Clare's poetry does little to appraise or describe London, other than in opposition to his beloved and bucolic Helpston, Northamptonshire. But the city and its urban forces was not only instrumental in unleashing the destructive forces of capital upon village life but also in the creation of the professional poet, through the patronage, publishing and circulation of printed verse. It provided the means through which Clare's words could be heard. One might then wonder what the poet's acute sense of place, of landscape, of nature, and of the non-human and observational prowess world might make of London today. A brief but stirring

description of the city on one of his few, early visits[81] captures something of the overwhelming spectacle of urban life for the outsider or newcomer:

> …everything was so uncommon to what I had been used to that the excess of novelty confounded my instinct […] everything hung round my confused imagination like riddles unsolved […] while I was there I rarely knew what I was seeing & when I got home my remembrance of objects seemed in a mass one mingled in another like the mosaic squares in a Roman pavement

Perhaps inadvertently, Clare manages to elucidate the impossibility of comprehending the urban in its entirety, and the challenge of stepping "out of one's knowledge". This descriptor he uses for how landscape is so intimately tied to our means of understanding and ordering of the world, and the sense of discomfort or disorder in unfamiliar places. This term echoes that discussed in the previous chapter of how ethnobotanical knowledge fostered elsewhere might be repurposed and rearticulated in new contexts, generating different cultures of nature. Yet, as Timothy Morton has explored, Clare and the "authenticity" of his village was never isolated or defined only through itself. "The space of the village, even if it was indeed feudal, was always already crisscrossed with otherness. There was no *there* there that was not already aware of another" (Morton, 2008:191). Clare's wanderings helped him get "out of his knowledge" and encounter even familiar places "for the first time, or in a different light" (Bresnihan, 2013:76). As Patrick Bresnihan has explored, the character of the commons in Clare's poetry is not one of merely the management of finite and defined resources but one of—often hidden—social relations.

> Clare allows us to see, from the ground, how this field was never just a field, but always a field—and ... a field-and-bees; field-and-rabbits; field-and-freeman; field-and-ass; field-and-gypsies. The field is not discriminating; it is able to provide for many uses and needs. These needs are not just material: the gypsies are provided with a space to camp, allowing them a form of sociality free from the limits and pressures of fixed accommodation (Bresnihan, 2013:86)

Therefore to understand the enclosure and loss of commons for Clare as merely a tragedy of local character misses the point that his poetry, "does not so much lament the loss of identity, it attacks the exclusive right of ownership which closes off the field from its manifold relations" (Bresnihan, 2013:87). In the case of London's "preserved" commons, their aesthetic has been, sometimes vigorously maintained, while the social relations they contained have not.

5.1 Common rights and customs: the meaning of/for foraging

[81] From 'The Autobiography 1793-1824'. In *John Clare: complete* works. Hastings, UK, 2013: p1361

In a classical and historical sense of common rights and common land, practices resembling or related to "foraging" hold a somewhat ambiguous status. In the first instance, we must differentiate between formal and customary rights of common. Systems incorporating common land—or land upon which various individuals, titleholders or communities held collective or shared rights—predates the Norman Conquest in England. Rights could be acquired and recognised either through grant—for example in exchange for military, knightly service—or through prescription, meaning rights accrued through continuous and visible practice. The complexities, vernacular and vagaries of common rights are immense and, importantly, often locally specific and variable. Broadly speaking, when discussing right of common, they can be classified as *appendant, appurtenant, in gross* or *by reason vicinage* (see Rapalje & Lawrence, 1997:238-240). Rights *appendant* were exclusively rights of pasturage and attached to ancient, freehold land of the manorial estate. They could be inherited and divided as and when the land was divided and did not require usage for the right to pasture be maintained. Rights appendant were considered manorial grants and were subject to common law across the country and administered by the royal court. Common rights *appurtenant* were similarly attached to specific tracts of land but this was *copyhold* land – meaning a copy of the specific and detailed rights in question was held and administered by the manorial court, which also accounted for local customary practices. Such rights were more varied and could encompass rights other than pasturage but their maintenance was dependent on their being continuously exercised. Common rights *in gross* were attached to specific persons, not to the land itself, while *vicinage* related to livestock grazing neighbouring lands.

The lands in question, upon which common rights were exercised, were *not* collectively or commonly owned as such, but instead held through subinfeudation by individuals of different statuses. In a system of feudalism, this meant that the monarch was the ultimate "landowner", with a hierarchical structure delegating and apportioning the use, management and profits at the different tiers of society. While the period following the Norman conquest saw the reorganisation and codification of land tenure under feudalism, "the scholarly consensus seems to be that the origins of the rights of common can probably be found in the early Anglo-Saxon period" (Oosthuizen, 2011:164). Nevertheless, as Oosthuizen (2011) goes on to explore, there is some evidence to suggest a greater degree of continuity between the common rights and governance of Anglo-Saxon and later medieval Britain, and more ancient historical periods. For our purposes, the relevance of such scholarly debates around the "origins" of the commons lies more in the ways in which the commons have and continue to be invoked as a clarion call for preservation or transformation, a point to which we will return later in the chapter. It is perhaps telling that much of our contemporary understanding of "the

commons" is as much defined by their enclosure and erasure as it is by the multifarious ways in which they functioned and evolved over time.

Rights of pasture have been the flagship around which common land and common rights have been framed, but it leaves open the question of where foraging fits. As we have already established, "foraging" itself refers to a range of different activities and is not limited to the material, the uses, the people or the context involved. So too, acts of foraging cut across a range of formal and customary rights within the realm of the commons. In addition to pasturage, formalised common rights included pannage (the right to turn out swine to feed on mast and nuts), estovers (the right to collect wood, for various uses), turbary (the right to collect turf or peat for fuel), the rights of soil (to extract gravel, earth or substrates), and piscary (right to fish). Depending on the context, these rights were most likely exercised on manorial wastes i.e. land within the manorial estate that was not cultivated, perhaps due to topographical difficulties, lack of fertility, or other uses. It is also helpful to point out the distinction between the common wastes and pasture, and arable fields and meadow, which were divided into strips for individuals to cultivate and then opened for grazing after harvest (Thirsk, 1964:3). Beyond the manorial estate, what Greer (2012) helpfully refers to as the "outer commons" (marsh, fen, upland, forest) were also sites in which foraging of different ilks would have been conducted although, again, these were not strictly "unowned" or "collectively owned". From the time of the conquest onwards, all lands otherwise outside of estates were considered the property of the crown. It is through such a framing that much Norman and medieval afforestation took place, that is to say the designation of lands as royal hunting grounds, which described not only "forest"[82] as understood today but consisted of a mixed ecology of woodland, heathland and farmland (Rackham, 1986). It meant the imposition of forest law, severely restricting the resources England's peasantry could extract from afforested land and preventing them from constructing fences to keep game out, with heavy punished wrought for infringements. Lewis et al. (1997:55) note how in England, "wastes and woods, including royal forests, were generally used as commons by large groups of people…the public character of wastes seems to have been ancient". "Public", as used here, is perhaps slightly misleading as it refers to the sense that spaces were used by more than rights-bearing commoners, across multiple settlements, rather than to the public as an abstract political entity upon whose behalf the state governs.

Despite intuitively appearing intertwined, for the most part, the forms of behaviour and provisioning covered by the term 'foraging' fell outside the more codified 'rights of

[82] The word "forest" comes from the Latin *foris*, meaning "outside". It is perhaps an oddity that the Parliamentary Act to establish Epping Forest as open to the public was one of *disafforestation*.

common' in medieval and early modern agrarian society. Custom nevertheless played an important role in establishing and entrenching subsistence practices upon which the rural poor most likely relied. As Thompson (1992:97) explains, "custom" functioned as and at the interface of both "law" and "praxis", generating a grey area in which many activities would have taken place.

> Custom passes at the other extreme into areas altogether indistinct – into unwritten beliefs, sociological norms, and usages asserted in practice but never enrolled in any by-law […] it may be the area most significant for the livelihood of the poor and the marginal people in the village community. Custumals and by-laws should not be taken to be an exhaustive accounting of the actual practice of common right usages, especially where these bear on the fringe benefits of common, waste, the herbage of landsides, to the landless inhabitants or the cottager (Thompson, 1992:100)

Piecing together various, often overlooked historical resources, historian Jeanette Neeson (1992) surmises that although difficult to measure in terms of volumes procured, foraging would have functioned informally but extensively amid the various modes of subsistence at work in the rural village. In terms of spaces, foraging would have taken place variously on both the "inner commons" (the common fields, under cultivation) and the "outer commons" (the manorial or common wastes, such as pasture and roadside verges) (Greer, 2012). According to Thompson (1992), such legally unrecognised but customary practices may well have been tolerated or advocated as they helped maintain a tranche of local, non-rights holding agricultural labour, valuable at harvest time in particular. Much authority and arbitration of the commons functioned at a local, manorial and parochial level, making for an uneven picture of what was practiced and what was permitted. With this in mind, Thompson also underlines that at and prior to enclosure, "a uniform concern of all regulations is to exclude interlopers from outside the parish from using the common" (1992:147). As outlined in previous chapters, and applicable here, the relative lack of records regarding foraging on the commons may suggest that either it was little practised or, more likely, that it was deemed of insufficient economic or legal importance at higher levels of the state to be worthy of recording. The absence of records is not only a challenge for the historian but also for those seeking to advocate for the value of such customary rights when faced with enclosure and the expropriation of people from the spaces that provided for their livelihoods. Efforts to demonstrate the unproductivity or wastage of land were central to the proponents of enclosure, not only as an argument of political economy but also a practical method to avoid the establishment of rights of prescription through continuous use. As Di Palma (2017) has sought to show, this process was cultural and ideological, as well as legal and economic, and helped imbue the idea and aesthetics of "wastelands" with an emergent normative force,

spurring the need to "tame" wild spaces for moral, as well as economic reasons. Indeed, Greer (2012) argues that it is the image of the "untamed" commons, vast and unowned, that helped support the imposition of colonial regimes of capitalist private property in the Americas. As the following section demonstrates, such arguments take on new force when the "wastes" in question are within or contiguous to cities. What we can also draw from the historic meaning of "the commons" are threefold. Firstly, although rich with broader political and cultural value, "the commons" referred to specific spaces, the rights associated with them, the people who practised them, and the rural life in which they were embedded and which they helped uphold. The commons did not exist or function in abstraction from the places in which they held value. Secondly, the functioning of the commons did not require, or often involve, collective *ownership* of land or the use of *unowned* land. However, they did present different models of use and management of land and the rights ascribed to it. Such models of tenure were intrinsic to and dependent on the feudal and pre-feudal systems in which they were entrenched. Thirdly, "the commons" represented a specific sort of claim and specific sort of legal-economic arrangement, and was not a label applied indiscriminately. Therefore, while "enclosure" functioned on multiple scales[83], its primary injustices were economic (its impact on the lives it touched and transformed) and legal (in its illegal encroachment, its use of legislative apparatus, and its overturning of existing regimes).

5.2 Preservation and London's Commons

With the hindsight and a gap of over a hundred years, it is altogether too easy to imagine that the early urbanisation of cities such as London was almost instantaneous; that the inward draw of people and the outward spread of the urban fabric and metropolitan authority occurred overnight. Such a framing fuels the idea of a sharp cleavage between urban and rural, between city and countryside, and tends to overlook the uneven and incomplete ways in which this urbanisation took place. While discussion of the "urban commons" may appear a recent development within the social sciences, dealing with emergent qualities of distinctively *urban* life, it has some revealing precedent. During the late eighteenth and more so the nineteenth century, as London expanded beyond its historic bounds, it came to engulf parts of its hinterland, converting once rural landscapes into urban and suburban space. As it did so, a series of conflicts, campaigns and debates took place around the present and future of common land that the metropolis had by this point cartographically subsumed. Curiously, this period of urban commons preservation is largely overlooked within the critical urban scholarship now drawing on commons thinking, within studies of environmental resource management and, until the early 1990s, within historical geographies and historiographies of

[83] Including that of the personal or social order described by Clare.

the commons. The historian David Reeder (2006) and, more extensively, an unpublished doctoral thesis by Neil Thornton (1988) detail the local and national history of commons preservation in London that signified an important shift in the form and function of public, open space in the city.

As Thornton (1988) points out in his work *The Taming of London's Commons*, the cause of commons preservation, although largely concentrated in the latter decades of the nineteenth century had origins stretching further back. The history of enclosures from the 17th to the mid-19th century have been well documented by historians and political economists alike. For Marx, enclosure of the commons helped create the conditions for the rise of industrial capitalism through the commodification of agricultural production and the generation of surplus labour (Lazonick, 1974). By the mid-nineteenth century, enclosure—through the acquisition of rights and titles or through the machinations of legislative power in parliament—had already exacted a huge toll on the English countryside and transformed the lives of its inhabitants and its exiles. London itself had quickly expanded beyond its medieval confines, aided by advancing infrastructural horizons of rail, canal, water and sanitation. In the process of the material expansion of the city, London had subsumed or threatened to subsume remnant commons in its vicinity. Common land was still in "use" but its uses had shifted as local populations increased and livelihoods moved away from agricultural subsistence. Drawing on reports and accounts of the time, Thornton (1988) explains how London's commons had acquired a nefarious reputation for material and moral disorder, including criminality, political radicalism and otherness. It was not only enclosure but concern for the safety of those traversing the large, unmanaged and unlit tracts of land that provided the impetus for their preservation:

> The presence of gypsies, tramps, criminals, dirty children or animals was a major reason why local inhabitants initiated measures to clean up commons...preservationists were often as motivated to rescue their commons from the moral abyss as from encroachers (Thornton, 1988:144).

While commons and wastes had historically provided for informal and customary uses—of an economic, cultural and political nature—they had formed part of a functioning rural economy and were not conducted in the vicinity of the metropolis and in full view of emerging urban elites. That these commons had assumed a notably cosmopolitan, if not wholesome, character played little role in their defence. The second mobilising aspect for commons preservation was the increased actions among the landowners of London's common land to realise their increased value by purchasing or acquiring common rights and enclosing the spaces for development. Nevertheless, this was not a simple narrative ("laced

with heavy doses of nostalgia", Harvey, 2012) of impoverished peasant versus greedy landlord. This notably urban movement had a range of actors and interests at work that do not fit neat narrative historical readings.

> When an organized movement to protect commons arose, it was centred in London, the world's largest urban centre. Its members had urban interests; they were not rural commoners. It succeeded largely because it fed the desire for nature in the city by providing areas of relative wilderness (Thornton, 1988:47)

The preservationist interests and concerns for London's commons were varied in nature. For social and health reformers, open land offered space for recreation and exercise – a counterbalance to the degrading impact of the city on the health of the urban poor. For wealthier residents, particularly those occupying the affluent housing that had grown up around these urban green spaces, the semi-rural', 'wild' or 'natural' appearance of the commons often provided an aesthetic rejoinder to the grey and polluted city, as well as space to carry out middle class leisure pursuits such as sport and horse-riding. The Commons Preservation Society, founded in 1865, was a campaigning organisation, active in Westminster, as well as in local politics, aiming to maintain and promote open access to London's commons, prevent further enclosure, uphold common rights, and to advance appropriate management of the spaces in question. The organisation, counting among its members high profile intellectuals and campaigners such as John Stuart Mill, Octavia Hill and George Lefevre, pursued their goals through political means of lobbying, public meetings, publishing works, and through legal proceedings concerned with individual commons conflicts. Part of the society's strategy in advancing the preservationist cause at the local and parochial level was through legal research on existing common rights still applicable to sites such as Hampstead Heath, Plumstead Common and Wimbledon Common. These were generally freehold rights, as opposed to copyhold rights, that would not expire upon the ceasing of their usage. As Thornton points out, these tactics had the twofold impact of bringing legitimate legal arguments to obstruct or reverse enclosure, as well as a discursive connection between these sites, they as their advocates, and traditional and historic common rights as practised since time immemorial. It was besides the point that urban and demographic change had wholly transformed the terms and nature of the commons' meaning and usage.

The Metropolitan Commons Acts brought and amended between 1866 and 1878 consolidated, rather than concluded the preservationist campaign, enabling local authorities to purchase commons and implement management schemes. Dynamics varied depending on local personalities, issues and dynamics. Thornton (1988) is keen to iterate the instrumental

role the Metropolitan Board of Works (MBW) played not only assuming responsibility for metropolitan schemes after they had been protected but in the justifying logics and processes integral to the preservationist movement. Reeder (2006) explains how the management of preserved commons fell to the Board, which assumed a key role in improving and maintaining the spaces i.e. maintaining paths, cutting back overgrowth, and deterring deleterious behaviour, and adjudicating disputes. As he points out, "the commons had to be tamed but without making them too park-like" (Reeder, 2006:49) and in many instances, the physical size of London's commons meant surveillance and regulation as had been established in London's parks was not feasible. This consideration was important because, "the landscapes of commons had been shaped by human activities for centuries but they often bore little resemblance to those of ordered parks" (Thornton, 1988:47). It did not necessarily mean a preservation of the "cosmopolitan" qualities that many commons had acquired through their informal use. Thornton (1988:49) goes on to state that commons "were to be, in a sense, wilderness under glass, with the unpredictable and the unpleasant relegated to the outside". Such a dynamic bears echoes of the potential exclusionary facets of contemporary urban "wilding" efforts, whereby certain people or practices can be designed or managed out[84] .

From this process, a handful of connected themes arise. Firstly, although "preservationists defended the rights of [individual] commoners in disputes with manorial lords, this did not preclude leading figures from claiming that the commons were the rightful inheritance of the people" (Reeder, 2006:46). The Commons Preservation Society itself (since reformed to become the Open Spaces Society) makes clear in its report of 1876[85], that the consideration of the public as an "interested party" in the legal status of London's commons was a novelty. Where the governance of commons was an established and recognised (if not uniform) legal-political undertaking, the emergence of a "public interest" in urban space had different consequences. A public interest is, by definition, an emergent property of an abstracted political collective, represented by the state. A *public* interest in urban commons that applies to all, regardless of individuated rights bearers, has quite different material implications to the personal context of the commons in the life of the village. Whereas the village common or wastes were the customary or traditional reserve of the poorest members of rural society, a public interest does not distinguish between such considerations. This shift in emphasis from the commons as spaces of subsistence and support for the poor to a more generalised

[84] It is worthwhile noting that the urban ecologist Oliver Gilbert in The Ecology of Urban Habitats (1993) frames 'urban commons' as quite distinctive ecological landscapes, defined by their openness and former use.
[85] Commons Preservation Society, (1876). *Report of proceedings, 1870-1876: with some remarks on the commons bill now before Parliament*. London: C. Roworth. Located in London Metropolitan Archives, CLA/078/09/001.

inheritance of a wider collective is a pivotal move, and one which has gone underexamined. The form of publicness ultimately brought through commons preservation can be contrasted to the desires of the Commons Defence League, which was active in parallel to the Commons Preservation Society. Its activities were more radical, class-oriented and sometimes violent, and centred particularly on the conflicts around the Hackney Commons. The preservationists overriding concern of enclosure and maintaining access to commons, in conjunction with a "public interest", affected the ultimate form and priorities of local and metropolitan board schemes. A great emphasis was placed on the maintenance of paths, thoroughfares and rights of way (easements) as rights of common pasture waned or ceased to be of value. The emphasis was therefore around leisure and transit, rather than subsistence and dwelling. Legitimate uses of spaces were therefore generally to be non-exclusive and non-extractive, meaning they could not preclude the enjoyment of the common by others and did not remove anything, as to do so would by definition deny someone else the same enjoyment. Such an orientation holds logic where over grazing would reduce common enjoyment of grasses or gravel digging would affect the material composition of the land and its use. The issue is clouded upon consideration of the picking or foraging of useful or edible plants. As only customary practices accepted within the commons of the rural village, they would have had little to no legal weight in the context of the newly established schemes for London's commons and could be seen as deleterious or undesirable, as were other informal uses, such as clothes drying and carpet beating. It appears that if foraging was practised—and it would be somewhat surprising if it were not to some degree at least—on London's commons, institutional archives did not record it. If it were observed, it may have been deemed too minor to be noteworthy or deliberately overlooked. As well as grant the power to direct revenues to the upkeep and management of the commons, parliamentary bills provided the power to local authorities to draw up and implement byelaws for the appropriate use of these newly public green spaces. This was a critical mechanism through which social and physical order was to be maintained. What was ultimately preserved was quite distinct from both the informal usage the urban commons had acquired and the traditional legal usage and rights mobilised for their protection. Efforts to preserve or articulate a defence of dynamic urban space can ultimately transform those very spaces in the process.

5.3 Extant commons in form and spirit: Walthamstow and Hampstead

a. Hampstead Heath

As we walk along a path hugging the side of Parliament Hill, offering at least part of the iconic vista out across London, Kim reaches out and grabs a handful of the black, desiccated Alexanders seeds (*Smyrnium olusatrum*) and sprinkles them as we amble to a bench to sit and

talk. She likes to help distribute them, she says, and ensure there are plenty next year. An umbellifer—the same family as parsley, celery, carrot and hemlock—Alexanders have gained popularity as a foragable plant in recent years, having once been a common staple for Roman soldiers arriving in Britain, with its edible roots, stalks, leaves, flowers and seeds. As well as working periodically in Hampstead Heath's social media and education sections, Kim practises herbalism and has worked with Kew on its programmes for recording and systematising traditional and cultural plant uses. She runs walks and courses on the medicinal use of herbs on the heath but is at pains to point out to me and to colleagues that the walks are for teaching and not collection purposes. Aside from it being against the byelaws, it is also how the site can be managed. "Even though it might look a bit wild, they've probably sprayed at the edges and it's probably not something I'd like to forage…and how would you tell?" She explains how her attitude to foraging in parks has shifted slightly since working at the Heath. Where previously she would have seen it is a "human right", the challenges of balancing the varied needs, interests and uses of such spaces has given her increased understanding of why some authorities would prefer no one conducted foraging there. For her own purposes, much of her herbal ingredients are sourced from her business partner's allotment, rather than more publically accessible city spaces. As much as for legal, sustainable and health reasons, this is because of the assuredness that a controlled space can provide in terms of supply. Nevertheless, she explains, she is delighted when she sees people picking in her local park , "cutting down the fennel, the herbs and they know what they're using and I've never spoken to them because I was always in a rush to go by…but I've thought oh cool…people using the plants".

The preservation of Hampstead Heath represents London's commons preservation *par excellence* in the manner that it accommodated both parochial concerns and wider political aspiration, while the conservation of its unique landscape character, as opposed to the likes of Walthamstow Marshes, was quite deliberate. The drawn-out process of its preservation was a focus for the Commons Preservation Society, for parliament and for the wider public, and culminated in the 1871 Hampstead Heath Act that set out the purpose and terms if its preservation. The proviso of the act that establishes "the [London Metropolitan] board [of works] shall at all times preserve, as far as may be, the natural aspect and state of the Heath", reflects the overriding concerns of campaigners and continues to frame its management. The original mandate preserved 200 acres of the heath, while subsequent stages have seen its extension to over 800 acres. At its most recognisable, Parliament hill stretching south-westwards offers a protected vista of St Pauls cathedral, flanked to the northeast by the hill leading up to Highgate and the woods also managed by the same authority as that of the heath. Unlike Epping Forest and its other commons, the City of London Corporation only

Figure 5.1: Views of Hampstead Heath . Source: Photo by author (2017). The Heath was a key focus for the commons preservation movement, partly due to its cherished landscapes and vistas..

acquired Hampstead Heath in 1989. At the point of its preservation, the Metropolitan Board of Works was tasked with its management and thus it passed through the same hands as much of London's government – first, the London County Council (LCC), and subsequently the Greater London Council (GLC). The aesthetics and landscape types of the heath are just as diverse as the history of its management, with its undulating hills, grassland, old growth woodland and various bodies of water forming the early stages of the River Fleet (see Figure 5.2) The old Thames tributary rises near the heath and links its ornamental and bathing ponds rises, before reaching its culverted downstream sections, which once formed the centrepiece of ancient London.

The roles Hampstead Heath is expected to play are multifarious. The diverse landscape shifts between grassland and woodland, parkland and sports fields, a lido and bathing ponds, sweeping meadows and furnished hedges, elegant houses and manicured gardens, intersected and flanked by road, rail and the dense suburbs of Highgate, Hampstead and Golders Green. As the City of London Corporation (n.d.) website states "find some countryside in the city". Yet the multiple amenities the heath is expected to accommodate are not easily balanced. For Meg, one of the ecologists for the heath and woods, foraging by the public represents a threat to the fabric and flora of the heath. This concern centres on the potential for indiscriminate collection, rather than an observed practice. Lessons have been gleaned in that regard from other City of London open spaces, such as Burnham Beeches and Epping Forest. The prohibition—or at least its potential—of picking and foraging practices appears to have been engrained in the Corporation's byelaws from an early stage. As the heath only fell under the Corporation's auspices after 1989, an adoption or translation of these would have been required but already bore a marked resemblance.[86]

Andy, a mycologist with a keen interest in the heath, has been leading fungi forays for several years. He acquired a license to do so after some negotiation with park management, who had expressed concern that mushrooms were being picked for eating, rather than for identification purposes. Part of the stipulation for conducting such public walks on the heath is that specimens only be picked when they cannot be identified in situ, and are sent off for formal identification (at Kew). Fungi provide one of the points of particular interest for ecologists, professional and lay, and several rare species have been recorded on the heath, such as *Cortinarius irregularis* and *Cortinarius nolaneiformis.* It is also mushrooms that, like several

[86] Byelaw for Hampstead Heath are accessible on the City of London website (n.d.) and can be seen to amalgamate the various rules applied to the site through changes in its management by both the MBW, the London County Council (LCC) and the Greater London Council (GLC) upon its reorganisation and acquisition by the City of London. Available: https://www.cityoflondon.gov.uk/things-to-do/green-spaces/hampstead-heath/visitor-information/Pages/byelaws.aspx. Accessed: 01 July 2019.

Figure 5.2: Information board, Hampstead Heath. Source: photo by author (2017). The Heath is managed by the Corporation of London and has dedicated byelaws, enforced by its own constabulary. Although foraging has been a point of controversy, it ranks low on the list of concern for the site's management.

City of London managed green spaces, have proved a flashpoint in relation to foraging in recent years. A foraging walk on the heath in 2010, led by Miles Irving[87], author of *The Forager's Handbook* (2009) and founder of wild food company Forager, and including the renowned Danish chef Rene Redzepi caused some consternation at the prospect of foraging on the heath (Daily Telegraph, 2010). For the managers of the heath with whom I spoke, the removal of fungi remained the primary concern when it came to foraging practices.

At first glance, Hampstead Heath certainly feels like a stretch of common land, at least in terms of the different landscapes one encounters there. Yet part of its challenge is the importance of maintaining such vistas in the absence of the practices and economies that once gave it such landscape character. As with Walthamstow Marshes (see below), the Heath recently trialled the introduction of sheep grazing to encourage the healthy regeneration of areas of the Heath's sward. The underlying requirement that the Heath's managers do not resort to fencing—quite literal enclosure—and its schedule of byelaws reflect fundamental concerns dating from the late nineteenth century mean that, despite the variety of amenities it is expected to provide, it is relatively inflexible to new and emerging needs and pressures.

b. Walthamstow Marshes

"This is all common land", Jon states, gesturing undiscerningly out across the marshes and beyond; the landscape of the Lea Valley. This, he explains, is his stock response if he's ever stopped by people querying his legitimacy in foraging. Much of it was once common land, it is true, but I refrain from pointing out that it no longer is. Indeed, I got the sense that this invocation of the common was not so much an observation of law or land tenure but that the spirit of commoning infuses landscapes materially and culturally; it seeps into the soil and is not easily dispensed with, no matter the extent or nature of enclosures and development. The fractured topology of this landscape defies easy reading. The Lower Lea Valley, extending from the muddy meanders of Leamouth at its confluence with the Thames to the city's metropolitan fringes where the M25 orbital motorway passes overhead[88], may be an exemplar "anxious landscape" of a post-industrial city (Picon, 2000; Gandy 2005). Its complex of extant and defunct infrastructures interlace the river valley, itself a mosaic of ecology, ownership and use, and make for awkward lines of cartographic and semiotic navigation. It has variously been understood as an industrial zone, a bread basket, as extensive wasteland,

[87] Images of the walk are recorded in BBC Radio 4, Today Programme Photo Essay (2010)
[88] The precise geographical extent of the "lower" valley is slightly ambiguous. The river itself extends up into the Chiltern Hills with its source at Leagrave in Luton and the engineered Lee Navigation goes as far North as Hertford, where it forms part of the infrastructure of the New River.

as refuge for artist and artistic imaginations, and as the frontier for “creative” capital, land speculation and city branding via the Olympic Games in 2012.

When the architect William Mann (2003:21) describes the Lea Valley as exhibiting the “primordial quality of a landscape that has always been there, which precedes all the layers of culture sand civilisation imposed on top of it”, few sites fit this depiction better than Walthamstow Marshes. Through chance and choice, the topic of foraging and the commons kept drawing me back to this same spot abutting the river’s edge and criss-crossed by railway lines and water infrastructure (as depicted in Figure 5.4). Walthamstow Marshes are situated around three miles northwest of the Olympic Park and five and a half miles from Leamouth. The site is around 36.7 hectares of predominantly semi-natural wetland habitat (Natural England, 1986) and has been designated a Site of Special Scientific Interest (SSSI) since 1985. Creeping marshwort (*Apium repens*), as well as a range of insects (Lepidoptera, in particular), small mammals, and birds of importance for conservation locally and nationally have all been recorded on the site. The site is owned and managed by the Lee Valley Regional Park Authority, which since 1966 has controlled lands adjacent to the river, from the Thames to Hertfordshire, “for the development, preservation, and management for recreation, sport, entertainment and the enjoyment of leisure” (Lee Valley Regional Park Act, 1966:1).

In terms of frequency, the marshes are most often viewed from the elevated position of the railway embankments that slice through them: south towards Stratford and the City; eastwards to Chingford and the edge of Epping Forest; north towards Hertfordshire and East Anglia. When travelling eastwards from the dense suburb of Clapton, the steep escarpment that descends quickly down to the riverside gives way to a dramatic opening of the landscape, offering views of river, meadow and distant factories, before becoming enclosed again as the train passes between the high sides of the East and West Warwick Reservoirs to the north. This expanse of predominantly grassland meadow was once common pasture for parishioners of Walthamstow, meaning that on Lammas Day—traditionally the first day of August—once the hay was cut and collected by occupying tenants, the meadows were opened up to locals who wished to turn out horses and cattle. Common rights were administered and managed by a manorial bailiff, according to local law and custom. This included the stipulation that “between 1677 and 1684 forbade the pasturing of all 'dry' Welsh beasts except those which had wintered in the preceding winter” (Powell, 1973). The historic “Black Path” passed through the southeast of the marshes, a route used for driving livestock in from the rural hinterlands of Essex and East Anglia on the way to market in the city. Such provision in the by-laws may have been intended to prevent indiscriminate grazing for those stopping nearby.

Figure 5.3: Evening view of Walthamstow Marshes from Horseshoe Bridge, Springfield Park. Source: Photo by author (2016). Passing trains, pylons and waterways reflect the infrastructures intersecting the site.

The marshes' commoning past is still reflected in the name of the "Lammas meadow" still located on the site and in which the now yearly "Community haystack" is constructed as an invocation of how the land's history could inform its present and future use.

Unlike the history of Hampstead Heath, and even the nearby Hackney Commons or Epping Forest, the more mainstream campaigns of commons preservation bypassed Walthamstow Marshes. There are a couple of possible reasons for this omission. Firstly, the enclosure of the common arable fields and portions of the marshes had taken place with the construction of the railways and water infrastructures earlier than the bulk of the preservation campaigns. Secondly, and more likely, local industrialisation, relative geographical inaccessibility, and the absence of interested local middle classes or individually powerful preservationists[89] meant the patterns observed elsewhere were not present. Neither was there the topography and ready-made vistas of sites such as Hampstead Heath. Nevertheless, the more radical and working-class oriented Commons Defence League, led by John de Morgan, was active on the adjacent Leyton Marshes[90] and together with local inhabitants ripped up tracks laid by the East London Water Company on Lammas day in 1892. By the 1930s, all rights to pasture had either been compensated or extinguished through non-use and the land was bought by the local council as metropolitan open land. The acquisition of the land as part of the incorporation of the Lee Valley Regional Park—an independent statutory public body—in the 1960s coincided with the consolidation of state recognised commons via the Commons Registration Act of 1965. In the case of the marshes at Walthamstow, urbanisation was partly responsible for its preservation but not through the directed actions and concerns of urban elites but the incidental growth of infrastructure along the river valley.

The landscape character, while semi-natural grassland and reminiscent of agriculture practices conducted before the city arrived here, is not accidental. As Simon, a ranger in the Lea Valley explained, the grassland is carefully managed, while trying to balance the various interests and uses the marshes experience. The reintroduction of a handful of cattle a few years ago was intended to replicate the grazing patterns that give the grassland its unique diversity of sward (see Figure 5.5). Members of the public are prohibited from certain areas in order to monitor and protect valuable species. He explained to me, as we sat in the scorching sun outside the Lea Valley Ice Rink, which the site also hosts, that foraging was a reasonably frequent occurrence on the marshes, although it ranked low on the list of concerns

[89] That is not to categorise the whole area as out and out working class – both Clapton to the West and Walthamstow to the East had significant wealth populations and local personalities (for example, William Morris, himself a preservationist, was born and raised nearby in Walthamstow).
[90] Today, Leyton Marshes and Walthamstow Marshes are functionally the same site and managed accordingly but the division once marked the border of the two parishes.

for him and his team. According to the by-laws governing this site, as well as all the land managed by the Regional Authority, it is illegal to pick and remove any plant materials from the site. However, as with other similar green spaces, enforcement is dependent either on actually discovering people out picking, or a report by a member of the public. Not only do the marshes provide ample quantities of accessible soft fruit, blackberries in particular, but the landscape is sufficiently spacious and variegated that activities can be conducted somewhat out of sight. Picking certain species for personal consumption, although not *permitted*, is generally not seen as especially damaging – and indeed invasive species such as blackberry bushes may be held back via trampling and picking. Part of the prudent management of the site is the monitoring and safe removal of invasive species such as Giant Hogweed (*Heracleum mantegazzianum*), Japanese Knotweed (*Reynoutria japonica*) or American crayfish (*Pasifastacus leniusculus*) and dotted around the marshes are small signs explaining the presence and response to such species. Nevertheless, members of the public often express their concern at this or other ecological techniques such as cutting verges and managing vegetation that seem intuitively discordant with the "wild" aesthetics of the site. These concerns arise despite the point that it was precisely the human management of the river meadows—through grazing and cutting—that leant the site its aesthetics and ecological value.

There are no official records of how much foraging takes place on the marshes: surveys are taken annually to gather information on how the space is used but the collection of plants for food is not included (both because it is a fairly minor concern and the likely reticence about admitting to something which is prohibited). However, it is common enough to be on the rangers' radar. If not officially sanctioned, it is largely tolerated if done at small-scale and with limited impact. It becomes more of a concern when done at a larger scale or for commercial purposes. For example, a local brewery had picked hops and other botanicals to flavour their beer, with their "local" sourcing being a marketing point. He is encouraging when foragers wish to lead educational group walks on the site, provided they abide by the by-laws and cause no damage. As the Lee Valley Regional Authority ecologist Cath explained, there were already various courses, walks and events that they offered, including bush craft, botany and forest schools, so it would not be an unimaginable step to extend this to foraging in some form, notwithstanding the implications of the by-laws. Many do pick here, as well as in the connected sites up and down the valley. A scene described separately by two respondents involved encountering Turkish women looking for salsify on the marshes. The rules regarding picking on the site are affected by the parts of plants sought. In the case of salsify, the edible root means that to take the plant without permission would not only be in contravention of the by-laws but also the Wildlife and Countryside Act (1988),

which prevents the uprooting of plants. Somewhat more common and visible in the late summer months is the collection of blackberries on the marshes. Hands stained purple from the fruit or the scratches incurred in the collection are a frequent sight at this time of year. Some choose a single spot and collect what they can, others pick the ripest and best-looking fruit as they pass along the paths and tracks scored across the site. Of those I spoke to, some lived locally and had been coming for years, for others it was more of a tentative rekindling of childhood memory or a first step into the possibilities of foraging and wild food.

Nearby development and changing mobilities have increased the usage of the site in recent years. Walthamstow and the borough of Waltham Forest have become increasingly fashionable and expensive as property markets have followed artists east across the city. Similarly, the London Olympics and associated speculation, development and gentrification have pushed up house prices locally. With this, new commuter patterns have emerged, including the use of the marshes as an area of transit, either by foot or by bicycle, back into the city. A certain paradox of ecologically valuable green space is that although one of the key metrics of its success is its use, footfall is one of the larger challenges to maintain the integrity of the site. Increased and more intimate involvement of residents in the marshes goes a long way to help garner support for their protection, generate funds and to show the positive impact of such spaces. However, it also incurs the burden of balancing and mediating the diverse (and not always compatible) uses of green space.

To the northeast of Walthamstow marshes, across Coppermill Lane, are Walthamstow Wetlands, a series of functioning reservoirs, officially opened to the public in October 2017. Technically, the site had previously been open to those that wished to visit—normally anglers, twitchers or others interested in the site's ecology—by the payment of a nominal one pound sterling fee left in a small envelope in the gate house. The land is owned by Thames Water, for whom it forms part of the company's major infrastructure alongside the Lea, and both Transport for London and National Rail, the two state-owned companies responsible for the railway lines dissecting the wetlands site. Since its redevelopment and reopening as a kind of multi-functional, quasi-public space, it has been run by the London Wildlife Trust and constitutes the largest urban wetlands in Europe, while it is a designated RAMSAR and SSSI – a designation that predate its recent "upgrade". The development, involving habitat and landscape restoration, the renovation of the former pump house as a visitor centre, the improvement of paths (including curated trails and information points), and improved accessibility, was funded by the Heritage Lottery Scheme, Thames Water, and the Borough

Figure 5.4: Grazing on Walthamstow Marshes. Source: Photo by author (2016). A small number of cattle were reintroduced to promote traditional regeneration of the sward.

of Waltham Forest[91]. Funding was also provided by the greater London Authority for cycle paths connecting the site to the also recently-opened Woodberry Wetlands in Hackney. Walthamstow Wetlands bears little resemblance to the former common land of Walthamstow Marshes next door, having been first constructed on the marshes by the east London Waterworks Company in the 1850s, providing potable water to some of the poorest parts of the Victorian city. The concrete reservoirs built on the long and notable history of industry on the site, closely associated with the amenity of adjacent river. This latest development to the wetlands (funded largely by public resources) also means introducing new demands to urban nature conservation, namely to provide for the ecological health and diversity of urban spaces but that such spaces provide an opportunity for public engagement with that nature. A key indicator of "success" is thus the number of people through the gates, which brings with it its own set of impacts. The London Wildlife Trust have been largely successful in continuing to navigate the complex terrain of constricted available funding while remaining focused on nature conservation as its primary rationale. In the case of foraging on the site it manages, it is one of the few green space managers to have adopted a dedicated policy statement on the topic and *enabling* foraging as a potentially valuable means of interacting with nature. As with many spaces, even those without explicit policies, it distinguishes between foraging for personal use and that for commercial gain, advising and reserving discretion in what to pick, when and where. As Walthamstow Wetlands forms private land, it is not clear to what extent the Trust's policy is applicable to the site. While now publically accessible, it is a stretch to imagine that the wetlands are now "public space" per se, not least because it remains private land, fulfilling a primarily industrial function. In some sense, the site's prior status of the site prior to its "opening" to the public resembled something akin to a common, with rights to fish provided through permit (it is also the largest fishery in London), easement afforded to those wishing to observe its ecology, and the place of non-humans somewhat assured through statutory designation (SSSI, RAMSAR).

Commons were, in some sense at least, "reserved" spaces, for parishioners, commoners, or those most in need, and, as Bresnihan (2013) and Metzger (2015) have sought to explain, multispecies in character. It remains to be seen what the long term impacts of the reframing of urban nature spaces as "public spaces" will be (both in terms of direct, material impacts and the managerial responses). The opening of the entrance to the wetlands on Coppermill

[91] Only a small proportion of the designated council funding is sourced from section 106 funds – according to the its indicative spending plans this totalled approximately £102k for the 5 years following 2016-17. Waltham Forest Borough Council (2016). 'APPENDIX B S.106 INDICATIVE SPENDING PLAN (2016-17)', Budget and Performance Scrutiny Committee Meeting, 14 December 2016. Available: https://democracy.walthamforest.gov.uk/documents/s54704/1.2%20APPENDIX%20B%20-%20S.106%20INDICATIVE%20SPENDING%20PLAN%202016-17.pdf. Accessed: 01 July 2019.

Lane, the part adjacent to Walthamstow Marshes, has meant increased footfall and porosity across the sites, which is not always accompanied by public awareness of the different managerial authorities overseeing the sites – and for many visitors this does not matter. As noted, foraging is potentially permissible on the wetlands but not so on the marshes, while dogs are allowed on the marshes but prohibited from the wetlands. Although the landscapes of the two sites are noticeably different, their proximity and contiguity lend them a sense of connectedness, even if this does not extend to the rules and jurisdictions governing them. Such a relationship reflects spaces up and down the patchwork of the Lower Lea Valley, where sites designated and managed as part of the Lee Valley Regional Park sit alongside those run by local councils, charities, the City of London and local community groups.

The "pull" of the marshes, drew me back there throughout the fieldwork. Meetings were scheduled in cafes overlooking the watercourses, foraging walks were conducted there (see Figure 5.6 for example), and my regular journeys out to Cambridge invariably took in the landscape opening out from the raised rail tracks punctuating them. In conversation with foragers, even in other locations, "the marshes" were a recurring refrain, a motif, a symbol, as well as lived, embodied space. Even as I learned more of the site, its uses, its history, its ecology, as the land became less and less *terra incognita*, I still found the ethereal image of the mist-shrouded marshes lingered in my subconscious. They continued, in my mind's eye at least, to bear an ethereal, edge-land quality, an otherness to the city-proper, despite urban expansion far beyond here. "The marshes" appears to be more than just a geographical designation (such a descriptor might refer to any of Tottenham, Walthamstow, Leyton or Hackney marshes, or indeed the marshlands that once occupied the majority of this section of the Lea Valley). These verdant tracts of land once separated villages from each other and from the metropolis a few miles beyond the Lea. Although arguably apocryphal given the ecological history of the site, the sense of these spaces as wastelands is powerful; wasteland in its historic sense of the land beyond the bounds of the manor, owned but open. The geography of the marshes makes their surveillance challenging, a lack of fencing and enclosure renders them accessible and porous, human and natural infrastructure (rail, road, river, undulation, vegetation) create conditions for both openness and discretion, and a lack of formal, or at least formulaic, landscaping leaves their interpretation open and meaning unscripted. As land to the west and east has been built upon, such relatively large open green spaces have offered ecological and psychological respite in a changing and densifying city.

Such conditions enable the possibility for green spaces like the marshes by the Lea to be understood as both spaces of hope and respite, and of fear and disorder. Their material horizon, while broad, does not stretch quite as far as their semiotic horizon. The Lea has

Figure 5.5: Herb walk on Walthamstow Marshes. Source: photograph by author (2017). Rasheeqa Ahmed – leading one of many foraging and plant walks organised and conducted on the site. The marshes have long held the quality of edgelands and accommodated a range of uses but recent developments have made the site more accessible and utilised.

acted as a home and an inspiration for a range of writers and artists through its history. In the last thirty years, many artists have set up home along its banks, at Hackney Wick with its numerous former warehouses or as part of the boat community, living on the river itself. The valley has assumed different characters throughout its history. As London grew, it came to be known as the city's breadbasket, due to its fertile soil, sufficient distance from the metropolis making food production economically worthwhile, but with enough proximity to enable logistics and supply. As a report that formed part of the broader strategic vision for the valley, including the creation of a linear park along its length, states, "the valley is London's kitchen garden, its well, its privy and its workshop and is treated as London's backyard because it lies at everybody's boundary" (Civic Trust, 1964:3, quoted in Travers, 2017:22). The spectre of the Olympic development brought the patchwork of the Lower Lea into full view. The photography of Stephen Gill has provided some document of the life of the valley and its haunted liminality, after the evaporation of its industrial prowess, before the transformation of the Olympian, so-called mega-events in *Hackney Wick* (2005) and *Archaeology in Reverse* (2007). A critique of the Olympic project in Stratford and the broader tendencies of urban capital and its "occult geographies" has formed a key theme in the latter opus of the writer Iain Sinclair, himself a friend of Gill (see for example, *The Olympic Scam* (2008) published in the London Review of Books). Bristow (2017:34) describes this, quoting De Certeau, as "a poetic geography that challenges the restrictive zone of a rationalized geography of 'literal, forbidden or permitted meaning.'" At a similar moment, and echoing similar themes, Tim Edensor, alongside photographers Caroline Christie and Bobby Lloyd, published a photographic essay on the Lea Valley entitled "Obliterating Informal Space" (2008). Amid Edensor's descriptive text, photographs of discarded fridges, drizzle-swept scrubland, and a squirrel deceased with hazelnut still gripped in its mouth offer a troubled and troubling version of the urban pastoral (see Harris, 2012; Campkin, 2013). So too the work of filmmaker Paul Kelly and the band St Etienne focus in on the Lea Valley in this period in the "London Trilogy" film series, including *What Have You Done Today, Mervyn Day?* (2005). In it, the camera follows a paper boy around the derelict and abandoned sites of the valley, more specifically Hackney Wick, set to the quasi narrative biography of the landscape through the people and places it hosted. I would argue that this genre of writing, photography and filmmaking flares up in the decade prior to the landscape's destruction, or "regeneration". The prospect of transformation (or as some might label "enclosure") by capital appears a necessary and foreboding prelude to the emergence of a particular form of reflection and self-awareness of threatened landscapes. It is not clear whether the Lea Valley has been such a focus for psychogeography because it embodies so many of its aesthetic and cultural concerns (fractured narratives, spaces and biographies) or because its most famed

proponents have connections to it. While psychogeography is adept at contending with the complex layering of social, material and urban histories, it is far less occupied with urban natural history itself and the presence and meaning of plants in and along urban spaces. As Sinclair himself notes in his forward to the most recent edition of *The Unofficial Countryside* (2010), Richard Mabey represents, "the unacknowledged pivot between the new nature writers and those others, of a grungier dispensation, who are randomly (and misleadingly) herded together as 'psychogeographers'" (Sinclair, 2010:11). Urban ecology and botany as scientific disciplines and vibrant motifs or metaphors are curiously absent from much of the psychogeographic writing on the Lea and London more broadly, despite the apparent relevance of their seemingly hidden or overlooked ecologies. No doubt the "wanderings" of urban foraging have resonance with psychogeographers' methods and interests. However, the potential for life—human and non-human—amid and alongside urban capitalist development and its aftermaths is far less of a psychogeographical concern as are the city's imagined pasts.

Yet, there is much room for continued ethnographic attention to such spaces and to rematerialise their lived experience (Tilley, 2019). In the case of the Lea Valley, Malkogeorgou (2019) has explored the materiality and meaning of the river itself for those that live *on* it and form "linear communities" through its differing mobilities, spatialities and temporalities. It is a helpful reminder that while the valley forms a cartographic space, the river is infrastructural in nature; fracturing some spaces but connecting others. Cultural geographer Stephen Daniels (2011) uses the Lea to explore his own biographical and professional association with landscape. He frames the essay around the landscape scenes surrounding the upper reaches of the river in Hertfordshire; connected only in a fluvial sense to the river's lower, metropolitan portions (a theme dwelt on by Sinclair (2003) as well). At one point, Daniels notes how Raymond Williams' critical claim that a "working country is hardly ever a landscape", and that the "very idea of landscape implies separation and observation" (Williams 1973:120) have inspired him since to "complicate, and challenge" this assertion (Daniels, 2011:91). If nothing else, the figure of urban foraging helps demonstrate how praxis and landscape can co-constitute each other.

5.4 Locating foraging in the emerging commons agenda

This brings the discussion to the point of contemplating the meaning and position of urban foraging amid the growth of commons-oriented thinking, with its particular inflection around so-called urban commons. The new commons agenda can appear decentralised and cacophonous amid the vast conceptual expansion it has undergone. The purpose of this final section of the chapter is to offer some reflections on the current state of (urban) commons scholarship, with reference to the limitations implied by practices of foraging in a city such as

London. As instinctively aligned as urban foraging and urban commons might appear, it would be a mistake to leave it there. The section will gently suggest some ways in which commons thinking could be prodded in a productive direction.

The relative absence of London's commons preservation in much of the historiography of the commons is notable, not least because of the impact these developments continue to have on the ways in which spaces of urban nature are imagined and administered. The emergence (and convergence) of urban commons and a public interest, the embedding and extension of by-laws, and the popular amplification of parochial commons conflict, all point towards this being a significant moment in the development of contemporary commons thinking. However, there are at least three distinctive intellectual lineages entwined in the recent surge in commons scholarship and activism. The first of these, and perhaps the most widespread, concerns the commons as forms of environmental governance and resource management. This arises specifically out of the dialogue between Garrett Hardin's framing of the commons as a collective action problem—and the need for either state or market authority over shared resource—and Elinor Ostrom's later reappraisal of Hardin's conjecture by drawing on empirical examples of successful collective institutions for managing environmental resources and the requirements for such systems[92]. Despite Ostrom's Nobel-worthy efforts and thorough debunking of Hardin's unsupported and politically troubling claims, the "Tragedy of the Commons" remains a well-consulted work within the environmental and social sciences. Beyond the thorough critique others have subjected his writing and views (see Feely et al., 1990; Mildenberger, 2019), and despite Hardin's ecological credentials, the conceptual basis of the essay was an 1822 lecture delivered by English writer William Forster Lloyd, relying not on empirical observation of commons grazing practices but a theoretical abstraction employed to discuss the growth of the labour force. As the environmental historians Alfred Thomas Grove and Oliver Rackham harshly point out, "this pernicious notion was invented by an American with no experience of how commons actually work" (Grove & Rackham, 2001:88). The dismissive reference to "an American" may mask a more relevant point here—a point of which Ostrom was cognisant—that local context is critical to an understanding of commons as strategy for managing resources. However, a critique follows Ostrom's work[93], whereby her framing of "common pool resources" is insufficiently

[92] In a *Radical History Review* special on enclosure, Peter Linebaugh (2010) tracks some of Hardin's scholarly interest in the commons and Lloyd Forster, as well as the parallel directions of radical thought around commons and property at the time. The historiographical detail he provides is valuable to understand the institutional and ideological subtleties (and not so subtleties) at work. While Linebaugh offers a lot to discussion of commons and popular resistance, as well as prevailing intellectual trends, there is no specific mention of urban commons preservation in London.

[93] Reference

flexible to accommodate varying interpretations and understanding of what precisely the resource is and how it may be managed.

> Different people will see different resources in a landscape. They will perceive different procedures appropriate for reconciling conflict. Moreover, perceptions will change, because different elements within the landscape will become "resources." (Adams et al., 2003)

This is no less the case in contemporary conservation as it was in the commons of early modern England and spaces and resources of urban nature in London today (notwithstanding the differences in the contexts). A focus on the *resource* as a predefined entity overlooks the inherent multiplicity of functions, and forms of subject, that commons and common land provided. This multiplicity is evident in the various uses and products that the commons could provide, and in the very idea that rights hold sway and be exercised on the property of others. It may be that Harvey (2012) regards commons thinking as "enclosed within far too narrow a set of presumptions, largely driven by the example of the land enclosures that occurred in Britain from the late medieval period onwards" but the importance of *land* and the territoriality of the commons cannot be underestimated in generating feelings of injustice at their enclosure. The example of London's commons preservation and the use of copyhold common rights demonstrate how common land can retain legal and political meaning, even after it ceases to be managed for a specific resource. Ostrom's interventions have nevertheless opened up commons discourse to a host of new geographies and groups, and introduced new cadres and classes of commons. Hess (2008) lays out the various facets of what she calls "the new commons", which deviate away from orthodox ideas of commons as natural resources (and their collectivised management), both to incorporate new conceptual thinking and the advancement of new frontiers of collective life, including digital commons, intellectual commons and genomic commons.

The second strand of relevant commons scholarship comes in the form of social, cultural and political histories of the commons. Whereas previous commons research had largely been concerned with examining the early formations of capitalism and industrial society from the grand perspectives of political economy and legal history, a new tranche of research has looked to reappraise the meaning of the commons in the light of their role in the lived experience of those who occupied and made use of them. The essays contained in *Customs in Common* by E. P Thompson reflect a part of his later concern in attending to how the minutia of everyday life and customary practice reinforced wider patterns of power and continuity in English rural life, as well as how wider social and economic change were received through custom. For Jeanette Neeson (1992), a rereading of enclosure through the eyes of commoners themselves produces a quite different picture to the official narrative of the likes of the Board

of Agriculture. In doing so, she asks "to look again at the lives of commoners and the meaning of common right. We need to know more precisely who commoners were, where they lived and whether the value of their rights was maintained or eroded before enclosure" (1992:9). By attending closely to the local history of commons in Northamptonshire, she demonstrates how common right survived in certain geographies, not least because "it was a crucial part of the structure of social relations" (1992:12). The accounts of those opposed to enclosure, including the likes of John Clare and the artist George Morland, provide a "view from below" and the commons *as experienced* - a view otherwise largely overlooked. Contrary to Harvey's claim in *Rebel Cities* (2012), the history of the commons and enclosure in England is neither staid nor vestigial but actively being reworked by historical geographers with implications for contemporary politics of space and place. One approach is the "thickening" of narratives of enclosure through close and detailed analysis of specific locations, "in contrast to recent expansive and generic redefinitions of enclosure that carry with them the danger of casting the analytical net so wide as to thin the concept of enclosure beyond meaning" (McDonagh & Daniels, 2012:109). Such scepticism they extend to the commons themselves which "has also been thinned beyond historical-geographical recognition as a sort of open access public space or a form of common property". This rereading draws historic rendering of commons and enclosure into a contemporary context through questions of gender (McDonagh, 2017), protest (Navickas, 2015; McDonagh & Griffin, 2016) and urban housing (Hodkinson, 2012).

This brings the chapter to the third strand of scholarship at work in the recent "turn" back to the commons, namely the idea of the urban commons within critical urban studies. There is a distinct lack of consensus around what defines and what is included under the banner "urban commons" yet this has not halted its proliferation across numerous disciplines. For some critical urban scholars, Lefebvre's (1995[1968]) "right to the city" offers a mechanism for framing the urban commons. For Amanda Huron (2015), the "urban commons", as opposed to either traditional, rural commons or global commons, are defined by their enactment in "saturated space…packed with people, competing uses, and capitalist investment" and by "the coming together of strangers" (Huron, 2015:963). The "already-commodified spaces" of cities mean that "urban commons must be wrenched from the capitalist landscape of cities", while in the meantime, "would-be commoners must participate in capitalist processes" (2015:969). Huron's empirical work builds on the tradition of feminist scholars of the commons, such as Silvia Federici (2004), looking to refocus commons work on questions of social reproduction and how commons can be maintained. This can be contrasted to the theorisation of the common, a la Hardt and Negri (2004) with an emphasis on "knowledge and information" amid a wider commons discourse "mostly concerned with the formal

preconditions for the existence of commons and less with the material requirements for the construction of a commons-based economy" (Federici, 2010:287).

Huron's articulation of what separates urban commons from other types of common is pertinent and develops from the now widely held view that commons are best understood not nominally, as fixed spatial entities, but through *commoning* as a relational verb (Amin & Howell, 2016:8); the commons as produced and reproduced through embodied labour and affective work. However, there is a tendency within work around new and urban commons, in the process of expanding commons beyond fixed spatial entities, to overlook the continued and intrinsic importance and value of that spatiality within the complex of relational geographies of commoning. Urban commons are not *only* constituted through the coming together of strangers but also through existing kin and community. As mentioned in chapters 2 and 4, while urban space, and particularly technology and infrastructure, disrupts and reconfigures what the "local" means in relation to people and place—breaking the confines of the proximate or territorial—that does not detach the meanings of "commons" and their regimes of care and reciprocity from material space entirely. Furthermore, critical and radical commons scholarship tends towards recognising and articulating commons only when they are threatened with destruction, commodification or enclosure. This tendency is conceptually problematic because it welds the commons to capitalist accumulation through their constitutive otherness. Such a problem also inflects the historiography of the commons when we only view them through the prism of enclosure and the advent of capitalism, thereby presupposing their destruction. What we can glean from the divergent examples of Walthamstow and the Lea, and Hampstead Heath is that urban commons concurrently exist on both material and ideal planes. Therefore it is important to distinguish between commoning as *praxis*—activities of *getting on with*—and commoning as *politic* – the normative articulation of or claim to the commons[94]. The latter is dependent upon but not synonymous with the former, while the former can be defended, but also altered, by the latter. London's commons preservation ably demonstrates this distinction whereby their legal status and political imaginary only partially matched the lived, material landscapes of commons, while what was ultimately "preserved" was something quite different to both. The status of common right by prescription, which retains at least a modicum of legal meaning today, demonstrates some of the interplay between the *praxis* and *politic* of commoning. Right by prescription, particularly with regards easements and rights of way, can emerge from historic and continuous (although not necessarily *constant*) use (see HM Land Registry, 2019). With

[94] There is an interesting linguistic coincidence of "getting on with" as a means to describe convivial and civil comportment, and as it describes a proactive *doing* that precludes overthinking or theorising and seeking permission or legalistic justification

regards foraging in London, while rights of access and easement might be claimed by individuals or on behalf of the public, it is unlikely that a specific right to forage could bear any legal standing through prescription.

"Enclosure" and "the commons", despite their current near-universal usage, describe geographically and temporally specific phenomena. "Enclosure" especially, bears a distinctly spatial connotation, despite its application to all manner of measures and processes associated with shared resources. The affront to justice and violence wrought by enclosure between the sixteenth and nineteenth centuries, largely in the lowlands of England, was meaningful and tragic primarily because of the impact on the lives of those people who drew subsistence from the common fields and wastes—their impoverishment and expropriation from the land—and because of why and how those spaces, rights and relations of common formed an integral part of feudal society. They were either rights recognised and defendable in law or they were customary practices accepted and reciprocated as part of rural medieval economy and society. Their existence and maintenance formed an integral part of feudal society and helped justify its extreme stratification of power; when power is fixed through writ of tradition, the rights of common that form part of that tradition cannot be so easily trespassed.

This point is not intended to proscribe the use of "commons" or "enclosure" to describe or advocate in a world quite different to early modern England but to use them judiciously and not as an easy proxy for "good" and "bad". It is also to say that invoking the commons and commoning without the social, economic, and legal structures and registers that gave them their specific and wider meaning is likely to be futile and to dilute the value of the terms. One possibility is to seek linguistic pluralism or vernacularism of "commons", that is to say embrace the multiple and varied ways in which people come to describe their shared spaces, practices, resources and relations. From the *ejido* of Mexico to the *allmeinde* of Germanic countries, local vocabularies contain vital differences and meanings associated with people, place and space, and should not be relinquished easily in the move towards a universal, nebulous framing of "the commons", even if at times this can be politically expedient. As chapter three exposed, subtle differences in language—between foraging, picking and gleaning, for instance—can infer valuable cultural, ecological and legal meaning, taking into account the "manifold particularities" (Linebaugh, 2008:19) commoning entails. Such an aspiration should not muddle the field as much as "thicken" the stories it contains. Rather than the erasure of all local difference in the name of "the commons", with the coloniality of the specific experience of early modern England acting as a framing device for all systems of shared resource governance, such an approach could provide a basis for meaningful comparative analysis and lesson-learning across geographies.

On the question of language, counter to prevailing tendencies, Hardt and Negri (2004:xv) opt against the term:

> the commons because that term refers to pre-capitalist shared spaces that were destroyed by the advent of private property. Although more awkward, 'the common' highlights the philosophical content of the term and emphasizes that this is not a return to the past but a new development.

While they may be correct that "the common" better captures the abstract qualities of shared or collective political life, the definite article is also a signifier of a specific and assumed spatial entity[95] that is lost in the widespread but jarring and ambiguous use of "a commons" as a singular noun with indefinite article. It is not clear in the historiography of the commons when "a common" became "a commons" but it is far more widespread within critical urban studies than it is in historical geography or environmental resource management. Theoretically, it could be a purposeful attempt to encapsulate the potential multiplicity of commons or common resources but a cursory historical reading would reveal the recognisably multiple nature of "the common" or "a common". Rather than a pedantic observation, this step arguably signals a shift away from the idea of the commons as series of material, territorialised spaces of shared interest and management to a more abstract, universal and depersonalised framing of collective resources.

[95] To "steal the goose from *off* the common", as the popular rhyme goes, clearly contains a spatial preposition, rather than the more ambiguous (and potentially more abstract) implication if it read "from the common".

6. Towards the foraging city?

Late in July 2019, the office of the Mayor of London, along with various partnering organisations, officially inaugurated London as a "National Park City" with an 8-day festival of events celebrating the many facets of the city's urban nature. As previous chapters have explored, such an initiative represents just one form of city branding oriented towards urban nature and biodiversity but one in which multiple and eclectic—perhaps cacophonous—agendas and visions of urban nature converge. Such imaginaries and material uses project varying potential urban ecological futures. One such future emerges in the opening sections of the manifesto for Continuous Productive Urban Landscapes (CPUL) as it guides the reader through an imagined future London - a city socio-spatially transformed by through food-growing at its very core (Bohn & Viljoen, 2005).

Whether a city framed through a stylised rurality, edenic abundance or reclaimed industrial ruins, London's urban nature constitutes a "material-semiotic" endeavour (Law, 2008). Building on the argument proposed in chapter 2, this matters in the context of foraging because it relies not only on the material availability or abundance of wild food but a conceptual awareness of that availability, including an understanding that it is good and proper to take advantage of these resources. The multiple different framings of London's nature, while individually proposing coherent visions, together have the effect of decentring and fracturing how that nature is defined. This may well reflect the disparateness of London itself; its diverse populations, mosaic landscapes and multitudinous ecologies. It may even be interpreted as a democratisation of the ways in which the city is defined and celebrated. However, following de Certeau, we might be conscious to resist any broad and holistic framing of the city as a mechanism of power. Foraging itself is instructive because it resides and is conducted at the level of the street or the park, not in the realm of planning and surveillance. Indeed, as discussed, even citizen-led efforts to map fruit trees and foraging spots in London—as has been done elsewhere—have been somewhat unsuccessful. Its very informality and its reliance on things or spaces "out of place" resist efforts to use foraging as a device for branding or defining the city as a whole.

There are different modes and temporalities to London's collective imagining of itself. These definitions are markedly political, taking place across what London was or has been imagined until now, what it is (not) and what it is becoming, the future-oriented question of what it *will be* and the conditional, normative implications of what it could or should be. Previous chapters have attended to historic aspects of an imagined past and the contemporary state of an observed present. To suggest this final chapter is a purely future-oriented one would be incorrect. It is neither a prediction of the city to come, nor a proposal for another holistic

urban ecological vision. It rather considers what possibilities might already be contained in contemporary "foraging" (in all its definitional variety) in London, what efforts are being made to reshape spaces and communities around foraging, and to ask what the city would look like if it were built with foraging, foragers and the plants they seek in mind?

Predictions are necessarily a precarious business and the insight the research has generated does not warrant such speculation. On various occasions, during discussions with foragers, green space managers or those with some degree of oversight, I asked what they imagined would happen to rates and types of urban foraging in the future. This was a somewhat unfair question in so much as no one individual is likely to be able to answer it (nor could I). The point was rather more to uncover what trends or pressures were emerging on the spaces with which they were concerned. The broad sense was that foraging in general, and urban foraging specifically, had seen a peak in the early 2010's and that this had plateaued somewhat in the subsequent years. This pattern is corroborated to a degree by the frequency of foraging related posts and events on the "Urban Harvest" online forum—an informal community network interested in plants, foraging and food, mentioned previously—which, based on the number of discussions created has seen a decline in activity from around 2015 onwards. This is merely indicative of one, albeit fairly large, group. A decline in online community discussion and organisation of urban foraging is not necessarily indicative of an overall decline in such practices but perhaps of this type. It may also be attributable to changing involvement of individuals, such discussion taking place elsewhere, or the dispersal of foraging activities from a community focus. Of all those consulted during the fieldwork, no one expected to see an imminent decline of foraging in London. The varied modes and rationales for foraging identified early in this thesis, and the highly contingent qualities of foraging practices—along with the meanings and encounters they entail—make for unpredictable terrain when it comes to the future trajectory of urban foraging. Factors that may have an influence include increasing or fluctuating food prices, the stability of food supply and availability, changes to the availability and qualities of urban green space in London, and the relative degree of regulation of such activities by local and metropolitan authorities.

However, it is a worthwhile exercise to imagine different ways in which London might evolve and how this would impact on existing foraging practices or how evolving practices might shape the future of the city. Although future-oriented, the first section of the chapter looks to existing ways in which people and organisations have actively designed spaces for foraging in London, despite its marginal, informal (and sometimes illicit) status. These come in the form of edible landscapes, orchards, hedgerows and forest gardens. Within these, there are difficult considerations in terms of openness and accessibility, types of planting and

maintenance, and rules affecting sites i.e. different urban imaginaries. The second section positions future urban foraging within recent scholarly exploration of the work or labour of non-humans in emerging imaginaries of urban ecologies. This begins with consideration of the various ways in which labour, paid and unpaid, is implicated in urban foraging, even when purportedly a leisure activity. While there is some conflict around for-profit urban foraging practices, it is revealing to imagine the other ways in which plants are capitalised and enrolled into forms of creative capitalistic production, even when undertaken at the margins of the wider economy[96]. Plants have received less attention than animals for the ways in which their material and performative labour is commodified under late capitalism (Barua, 2016). This is not least because their liveliness is altogether non-human and, as the plant philosopher Michael Marder explains, is alien to human experience. However, in all sorts of ways plant labour matters for the city and also inculcates other forms of non-human labour and need. Therefore, the third section takes on the idea of what Richard Mabey has somewhat vaguely called a "foraging ethic". In principle, a foraging ethic would foster care and stewardship within the practices themselves and establish foraging as a means of critical environmental engagement, opening up interest and concern for the politics of food, where it comes from, and the place of nature in urban lives. Although "codes of conduct" have been drawn up by some organisations, I argue that such mechanisms are insufficient to foster "sustainable" extraction because of the nature of the practices in an urban setting such as London. So too, invocation of the "urban commons" as a governing principle for foraging is insufficient in the absence of more structured and recognised political forms to support them and wider social and cultural resonance. The final section offers a call for a more direct policy coordination between organisations under whose purview green space and foraging falls, with the potential for a more coherent and informed approach to the question of such provisioning practices in London. While previous chapters have brought into question the relevance and logics of city "visions"—those all-encompassing labels crossing between place-branding and governance strategies—there are lessons to be gleaned for design, governance and living through at least *imagining* what a "foraging city" would entail.

6.1 Designing spaces for foraging

City spaces come to be potentially and actively foraged spaces for a range of reasons. As the discussion in chapter 2 sought to show, the presence of edible plants is a precondition but not a determining one for this occurrence. Highly privatised spaces, invisible to most eyes and not easily accessed are unlikely to accommodate or invite foraging. Similarly, busy, highly-visible and porous spaces may struggle to accommodate foraging practices – either their

[96] Possible forms of labour – corporate volunteering, paid walks, the labour enabling leisure, plant labour (growth, reproduction, distribution, competition), animals using and distributing, the "experience" of picking, community networks, collecting and selling commercially

resources will be quickly extracted or such uses will attract greater degree of management. Foragers explained to me in differing terms both the importance of accessibility *and* of privacy. Others differentiated between spaces more or less likely to contain biological or chemical contamination, whether caused by historic land uses (bomb debris, industrial activities) or recent practices (animal defecation, pesticide usage). The presence and possibility of urban wild food has tended to be, by definition, incidental to or in conflict with the designated purposes of spaces and plants. Specimens planted for one reason may be repurposed as a food source. Individuals planted in one space may, through their own reproduction and with the help of others, colonise quite different spaces, including garden escapes. Neglected or disused spaces may provide opportunities for edible plants that would otherwise be managed out through weed control (McLain et al., 2014). However, people and organisations are increasingly considering interventions to actively encourage informal foraging and gathering practices in London. Despite the extent of London's urban forest canopy and varied stated amenities provided by street trees, author Paul Wood explained in conversation that he had encountered little to no historic or archival reference to planting trees in public spaces as a food source. Community gardens and farming have been studied in detail in many different cities globally, with their social, ecological and economic well-established, if uneven. However, spaces not intended for careful cultivation or management but deliberately designed for the growth of accessible and useable produce are far less clearly articulated.

Crossing over to one corner of Hackney Downs—once a tract of common land used by locals and itinerant drovers bringing their livestock to the city—the grass becomes markedly less kempt between the youngish fruit trees growing from it. An information board depicts this community orchard cartographically, indicating the different apple tree varieties to be found there with 15 red dots. To the west of the triangular patch, an area is set aside as wildflower meadow. The orchard was planted in 2008 by the local Hackney "Tree Musketeers" initiative, which continues to convene "local people who do practical stuff to plant and care for trees in Hackney". The information board is also emblazoned with the Hackney Borough Council logo (who manage Hackney Downs) and Natural England. The "old or rare varieties" depicted on the board and growing in the orchard bear intriguingly exotic names such as "Belle de Boskoop", "Laxton's Fortune" and "Kilkenny Pearmain" (See Figure 6.1). The board explains that in "a few years the trees will bear fruit. Some apples can be eaten when picked; others should be left for a couple of months". It is not immediately clear to what extent visitors to the park acknowledge this advice, or indeed that this indeed is appreciated as a community space. Upon visiting with Al, and in the absence of parks staff to advise, we sampled some of the apples in fruit. My palette was likely not refined enough to appreciate

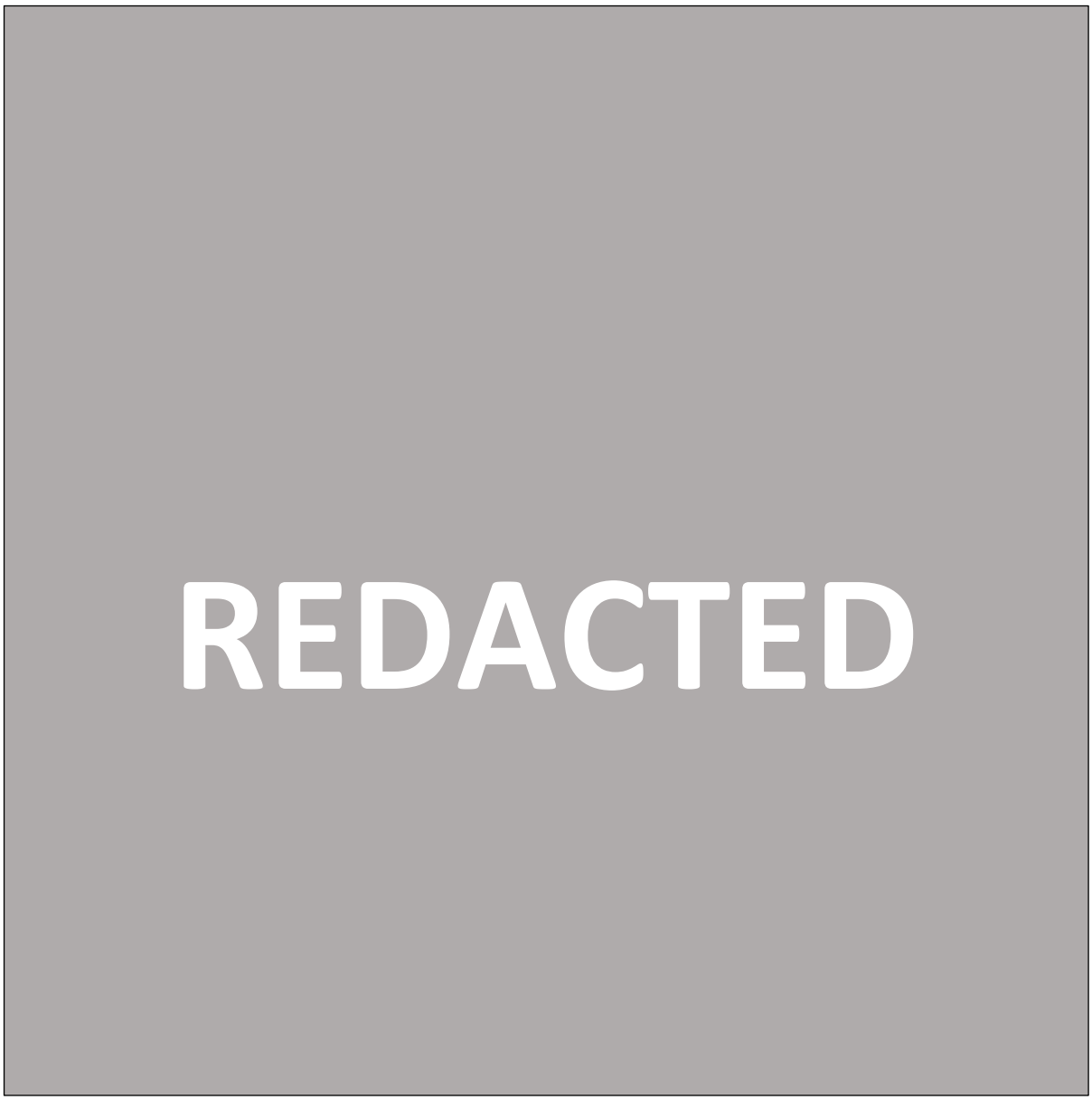

Figure 6.1: Heritage apple varieties on Hackney Downs. Source: Photo by author (2017). The fruit, picked in a community orchard ripen at different times. Bruising is almost immediately visible on these.

the subtlety of flavour but it was altogether clear that they were either not ripe or required some further maturation at home. A nearby black mulberry tree was also in fruit, offering the sweet, pungency of a flavour difficult to find in most supermarkets or shops.

Such community orchards are an increasingly common sight in London's parks, as set aside spaces for the public to enjoy. Orchards and fruit trees tend not to be entities that take care of themselves or that will necessarily flourish without ongoing human labour. The Orchard Project's primary focus is the creation and restoration of community orchards in London and beyond, sometimes rediscovering otherwise lost or neglected orchards. Arboriculture is a distinctive professional activity, requiring dedicated skills and experience, along with equipment and resources. The more-than-human relationships emergent in such socio-ecological assemblages are revealing manifestations of the complexity of urban nature. The resources to maintain fruit trees in public spaces are an ongoing concern that last long after an orchard's installation – and indeed the lifetime of most public budgets. The success of fruit trees is played out in a decadal timescale rather than an annual one. For charitable organisations such as Trees for Cities, for whom orchard planting offers a valuable means to increase and improve the urban forest, they provide an important interface between local residents and urban nature, and sets the scene for community training and involvement in the management of local sites, longer term horizons must be balanced with more immediate project requirements. For the most part, Trees for Cities acts as an implementing partner for local governments, community organisations and landowners, providing technical input in design and construction, while leaving the maintenance, governance and regulation to the responsible organisation. In recent years, designs for community spaces have increasingly included planting with the explicit purpose of providing fruits and nuts for community members to make use of. They explained that this was both in response to emerging interest and demands for edible planting and as a proactive strategy to encourage engagement.

The medieval field systems still scored into the landscape of Fryent Country Park in Brent are made visible by the remnants of the hedges that once divided them (see Figure 6.2). These more-than-human compositions of plants and animal inhabitants no longer divide agricultural plots from each other or fence in otherwise wandering animals but are maintained as key biodiversity habitats and for aesthetic enjoyment. The hedgerows of Kentish Town—once a village to the north of the city—push through the thick layers of composited history as Gillian Tindall explores in her *The Fields Beneath* (2010). Hedgerow species emerging at the ends of gardens and the edges of plots manifest, through the concreted and seemingly transformed landscape; the continued presence of the past. So too at Hampstead Heath, areas of hedgerow have been deliberately preserved as, while no longer marking divisions in the land, they provide ground cover for small mammals and invertebrates, habitat and food for nesting

birds, and an example of traditional rural management techniques. For Kim who takes walks around the Heath, the small length of hedgerow close to the bottom of Parliament Hill provides an ideal site where a variety of edible and medicinal species are concentrated within a short distance. It is no coincidence that references to hedgerows appear in sources as diverse as the poetry of John Clare and Ministry of Food pamphlets delivered during the Second World War, as is their enduring material and symbolic presence in representations of British rurality and national identity. In *The History of the Countryside,* the naturalist and historian Oliver Rackham (1986) laid out a formula for how one could date a hedgerow by counting the numbers of species in a 30-yard stretch. The presence of hedgerows in Britain has undergone ebbs and flows through various points in history, with their widespread use in the Anglo-Saxon period, their clearance for the open-fields of the medieval manorial estate, their reinstatement during periods of enclosure, and their destruction in the post war period of the twentieth century to make way for the large-scale modernisation and mechanisation of agriculture following the green revolution (Gosling et al, 2016). Their more recent loss—along with species that would have relied upon them for forage and habitat—has generated consternation in various quarters but their image and presence has long been received variously. In the context of suburban life, the proliferation of single-species (often box) hedging, often carefully pruned and shaped, is almost as synonymous with a placated and a domesticated nature as that of the suburban lawn (Robbins, 2007). Following a meandering "herb walk" around the community garden at the Castle Climbing Centre, taking in remedies, botanies, natural histories and folklores of the varied plants in this herbaceous tract, a number of us held out in the rain for an introduction to its recently planted hedge. The garden occupies a discrete area at the base of the Castle Water tower overlooking the West Reservoir, on the border of the boroughs of Hackney and Haringey. The reservoir's twin—the East Reservoir—now takes the form and name of Woodberry Wetlands, opened in 2016, and managed by the London Wildlife Trust. The busy thoroughfare of Green Lanes runs right by the garden's western edge, where the previous year a small group of volunteers had laid a new hedge, in the traditional English style. The hedging provides a buffer to noise and exhaust fumes emitted from the passing cars and acts as demonstration of both the technique and history or hedging, and the multiple benefits plants can play in urban design. Laying hedges in a traditional manner resembles an intense form of human-plant interaction, one which is both immediate and tactile and which deals in the material potentiality of various species and individuals. A fundamental element of hedge-laying is pleaching, the process by which a stem is cut down to as little as 10 per cent of its thickness in order that it might be bent over to form a horizontal structure for the hedge. By leaving bark and vascular structures for the transportation of sap the pleacher stays alive and is able to seal the wounds caused by the cuts in the laying process – if done incorrectly, the cuts can rot and threaten the rest of the

plant. The hedge we were shown was laid by interweaving coppiced hazel supports and would be trimmed every few years, and potentially re-laid after 15 years. Traditionally, different laying techniques, species and aesthetic styles reflect different agricultural practices and climates, representing an important form of local vernacular. While not specifically intended as a source of food in the case of the Castle Garden hedge, the species planted, including hawthorn (*Crataegus monogyna*) and elder (*Sambucus nigra*), would flower and fruit before long. Gosling et al. (2016) have explored some of the ecological importance of hedges, the role they could play in engaging citizens in nature conservation and the critical differences between hedges in the city and the countryside.

Originally proposed in 2005 in a volume dedicated to the subject, Continuous Productive Urban Landscapes (CPULs) (Viljoen, Bohn & Howe, 2005) is a model of urban design and planning that aims to strategically integrate urban agriculture and food economies into the fabric of the future city. This comes in the form of connected ecological infrastructure and the repurposing of public open space for food growing. In doing so, it takes seriously the potential contribution that such a cohesive urbanist vision can make ecologically, economically and calorifically to a city. Although purportedly an encompassing strategic approach to planning, the original proposition was both speculative (rather than actualised) and a compendium of different existing initiatives, examples and techniques. In a volume of essays that follow up on the original CPUL thesis (Viljoen & Bohn (eds.), 2014), *Second Nature Urban Agriculture*, examples and developments from urban agriculture testify to the elevation of its status in the design and functioning of a range of cities. It is not altogether clear how much of the expansion of urban agriculture interest is due to the propositional work of CPULs or how many initiatives incorporate its principles and insight. Nevertheless, the framework signals a shift from urban agriculture as niche and piecemeal to something embraced at the level of the metropolis. It is itself non-prescriptive in terms of what cities should look like, what should be grown, how crops should be cultivated and how particular spaces should be governed and managed. As may be imagined from a largely architectonically focused theory, it attends to space and form but not "the modes through which people are enrolled or excluded from the enterprise, the rules and practices through which public growing spaces are regulated" (Nyman, 2019:172).

One of the specific approaches the CPUL thesis promotes is the idea of "forest gardening" as a viable urban cultivation technique. Originally termed and developed by the horticulturalist Robert Hart as an interpretation of agroforesty on a small plot (Crawford, 2010), the idea of forest gardening is to provide significant and diverse foodstuffs and materials using sustainable management techniques and a limited ecological footprint. It consists of seven different forest "layers", including the canopy, ground cover, rhizomes and vertical growing

Figure 6.2: Preparing for a foraging walk at Fryent Country Park. Source: Photo by author (2017). The map shows how the historic common field system and hedges structure the form of the site today.

vines, which are intended to complement each other ecologically and functionally. Importantly, it is ultimately a perennial, low-intensity form of food growing, not requiring the levels of soil management, pest control and human labour that annual food crops typically demand. There are various instances in London where principles of forest gardening have begun to be implemented. For example, at Priory Common Orchard in Haringey a grassy covered patchy home to a not-in-use public toilet and little biodiversity was transformed by a local community effort into a functioning urban forest garden. The site is open and accessible, with passers-by free to wander through and pick fruit, nuts or leaves from the site's hundreds of plants if ready. Gemma, who started and led the repurposing of the public land explained that in the first instance, the messier aesthetics of a forest garden were slightly off-putting to local residents. In a space that had previously been overlooked or mistreated, the non-geometric beds, scruffy edges and multiple layers did not give the impression of order for which some people hoped. The compromise was to tidy certain aspects, provide labelling and playful signage to help guide visitors, while maintaining the original ethos of ecological sensitivity. There are no formal "rules" as such, other than "be sensible". Through the exchange of tools, materials and plants, the site is connected to its immediate and wider neighbourhood, and installations that accommodate the non-human, such as bug hotels and a hedgehog house constitute its "property portfolio"! Although such a space requires work and energy at the beginning, its low-maintenance and no-dig approach means that labour becomes less necessary as the site and its plants mature. Maintenance is normally done one morning a week, followed by lunch picked from the garden and community events are held there during the summer.

Edible Landscapes London is another forest gardening-inspired site in Haringey, situated on part of the former plant nursery at the Manor House exit of Finsbury Park. Founded on similar principles to Priory Common Orchard, it differs slightly in format and function. Firstly, given the nature of the location just inside a busy park and on in-use council property, the garden is surrounded by fencing. Volunteer sessions are held throughout the year and it is frequently open for events and activities. It has a more explicitly educational orientation, providing a site for the teaching of forest gardening to individuals, groups and local organisations. Free sessions for children and the community are subsidised by corporate volunteering, partner funding, and paid-for courses in forest garden design, via an accredited course. Unlike Priory Common, Edible Landscapes—with its enclosure in the park—does not offer a freely "forageable" space but does provide a space in which botanical knowledge and skills can be honed, and they have previously convened foraging walks around Finsbury Park culminating in visiting the space. They have also planted a forest garden bed in the park itself with the help of local school pupils, and have partnered with several other local gardens to

help develop small-scale urban forest gardens. The possibilities urban forest gardening offers to parks and streetscapes are promising, precisely because they not only provide a potentially meaningful source of fresh produce to local residents but can contribute to functioning urban ecologies and, in a period in which public funding has been withdrawn from many areas of civic life, they are designed deliberately to require minimal maintenance and upkeep.

6.2 The work of foraging, labour and the non-human

As various commentators have underlined, contemporary urban foraging practices can be seen in many contexts as distinctively non-capitalist, if not self-consciously anti-capitalist in some cases. This is not an indication that people, plants and urban spaces are severed from prevailing forms capitalist production—and with it the commodification of nature through the food system—but that foraging offers a glimpse of alternative modes of production, reproduction and social relations. As the final section of chapter 4 indicates, these possibilities are often gestural and performative, often lending themselves to artistic provocation but not necessarily extending to the politics and practicalities of more structural change. The ways in which urban foraging might be understood as non-capitalistic are themselves varied, ranging from the ways in which it often intersects with local sharing and bartering economies, invokes principles of commons and commoning, evades the commodity form and exchange value, functions through unsettled legal and proprietary relations, and refocuses attention on the qualities and contributions of non-humans and non-human ecologies. Thinking through urban foraging's distinctively non-capitalistic qualities is helpful because it serves to qualify the seemingly universal reach of capital and urban capitalism; to highlight the very real and extant alternative ways in which a city might be imagined and inhabited is to cause the mask to slip slightly. Where we might identify qualitatively and meaningfully "non-capitalistic" aspects of urban foraging in the midst of one of the world's foremost centres of financial capital is not to suggest that such prevailing economic forms are altogether escapable. Foraging is in that sense not "un-capitalistic" in so much as the city enables, even if it does not permit, such practices. In the more obvious examples, urban foraging can and does feed into the formal economy, by providing materials that are ultimately sold on the market, through paid-for services of foraging teaching and guidance, and slightly more abstractly by contributing to the aesthetic and vernacular image of the "creative city". However, work and labour manifest themselves in various other ways through urban foraging, which is the focus of this section of the chapter.

John Locke's *Second Treatise of Government* (1988 [1690]) outlines a justification for private property based on a labour theory of value, a theory that has profoundly shaped subsequent liberal and Marxist thought. Locke's concern is primarily how the application of human labour to otherwise untouched or wasted Nature is justified, desirable and conferring

of a right of private property. Furthermore, it is to establish that in a state of Nature, though it cannot be justified to appropriate more than one can make use of or deprive others of the same opportunity to enjoy, private property can be accumulated through systems of exchange and money form. There are many questions that can and have been raised about the internal logics and implications of Locke's claims. However, what is interesting for the purposes here is that while he dedicates the first portion of the chapter to acquisition through *gathering*, his primary concern is property as *land* and *mon*ey. As he states, "the chief matter of property being now not the fruits of the earth and the beasts that subsist on it, but the earth itself" (1988:290). While the labour of gathering or foraging provides a mere precursor to apparently more important forms of just acquisition, what he has to say is intriguing. For Locke, whatever someone "removes out of the state that Nature hath provided and left it in, he hath mixed his labour with it, and joined to it something that is his own, and thereby makes it his property" (1988:288). He ponders at just what precise moment that (in his example) a handful of acorns became someone's property – whether it be their collection, their preparation, or their consumption, concluding that "it is plain, if the first gathering made them not his, nothing else could" (ibid). His claim around the legitimacy of this first appropriation is rather more based on instinctive appeal than logical reasoning but appears not to distinguish between the kinds of materials in question. He treats the "acorns picked under an oak" as identical to "the apples gathered from the trees in the wood" (ibid), despite the material differences they exhibit. As we sat in her flat overlooking the leafy climes of Highgate, Gemma explained the intricacies of processing acorns into something both edible and palatable as she presented the slightly wobbly acorn jelly in front of me. In order to grind acorns into flour, they require leaching of their tannins and a lot of physical exertion. Apples on the other hand, while they can be processed and prepared in a myriad of ways (and in some cases, such as crab apples need some processing), can often be eaten straight from the branch or ground. Although Locke claims "labour makes the far greatest part of the value of things we enjoy in this world" (1988:297), over the natural state of things, the apple, as foodstuff, is virtually already complete, worked-upon and recognisable by the moment at which it is encountered by the gatherer. Conversely, if the acorn at the point of its acquisition is altogether unusable without work at a later time, it is not the application of labour that renders it property but its potential and proposed application. If it is through pannage—turning pigs out in woodland to consume acorns or mast—that justly appropriates the acorns, it is far less the person's labour than the pig's, through foraging and digestion, that is mixing with nature in the course of its own reproduction. While it is not an especially radical observation that Locke's thinking was primarily anthropocentric in its orientation of labour power, it is surprising just how little labour he imagines is required to render something growing wild the property of a human agent.

This contrasts quite starkly with what Anna Tsing describes as "the undeserved bounty of the gift" upon encountering and collecting mushrooms. As she explains, "these mushrooms are not the product of my labour, and because I have not toiled and worried over them, they jump into my hands with all the pleasures of the unasked for and the unexpected" (Tsing, 2012:142). We might well have to consider more than just the imminence of encounter i.e. the modes of walking that brought her there, to really appreciate these as "unasked for" and "unexpected". But the idea of celebrating and enjoying undeservedness is an interesting one. While Locke is at pains to establish just how *deserved* appropriation is through the application of labour, Tsing is open about how small a part she played in the mushroom's growth and fruiting. Locke's tenuous claims arise because such justification is a necessary precursor to the justification of more prominent forms of private property, namely land itself. While he appears to champion the moment of collection as a pivotal event, he pays its phenomenological intricacies little to no attention (nor necessarily should he, given the rationale of his argument). In many senses, the justification—if that is indeed am apt term—for Tsing is not some fundamental right, nor indeed an invocation of either individual necessity or common ownership, that *affords* the possibility of procuring mushrooms but the interplay of encounter amid memory, landscape and ecologies. That the presence and possibility of mushrooms is incidental, if not detached, from human design is part of the delight and value in such encounters. Such "food for free" (to paraphrase Mabey's title) is not only the absence of price or exchange value but a political freedom expressed through the circumvention of the logics of commodification and human-dominated systems of food production. However, in the case of urban foraging practices, the absence of a price tag on the plants and materials foragers collect is not to indicate they occur in isolation from labour-capital relations. Indeed, Tsing's very reason for focusing on mushrooms is their peculiar capacity to tell deeper histories of modernity and indicate ways in which we might live within and beyond capitalism's ruins and detritus.

Only a very small fraction of those foragers I encountered drew income or notable portions of their livelihoods from urban picking. Although easily framed as a middle-class or hipster pursuit, the profile of those involved in foraging's various manifestations was diverse. For a number of people otherwise at the edges or outside the labour force, foraging provides a valuable form of productive recreation. Its "freeness" in a city that increasingly commodifies "experiences". It is as much a question of not having to pay to practice foraging, as it is the free food that one might acquire in the process. The local harvesting networks were a vehicle through which urban foraging meant encountering other people and connecting to local neighbourhoods. A number of foragers explained how they had turned to foraging when out of work or underemployed – not solely for subsistence but as a physically, mentally and

emotionally beneficial exercise. As mentioned in chapter 4, for an asylum seeker I spoke with who volunteered with a community organisation it was precisely because urban picking was *not* a waged pursuit that meant he could be involved (given UK asylum rules preventing applicants in the system from undertaking paid work). It was unpaid labour of sorts but not unrewarded. It gave a meaning, purpose and distraction amid the boredom of having little money and limited activities to undertake. For those foraging for leisure or recreation—as opposed to subsistence—the very possibility of doing so is likely a result of labour conducted elsewhere. It may be the "day job" that meant leisure time could be dedicated to urban gathering, the accumulation of past labour in the form of a pension that gives adequate time to people in retirement or the waged labour of other family members that cover the monetised costs of living. So, while participants and volunteers may be contributing to alternative local economies and fostering self-sufficiency, it is not necessarily in complete disconnect from the mainstream economy.

For a small number of companies actively using urban foraging as a procurement strategy, the unpaid labour of volunteers (either motivated by food waste or the enjoyment of the activity) is crucial to the slim profit margins that food and beverage industries present. Picking and foraging is undoubtedly *work* to the extent that it exerts a physical toll on the human body, requiring energy and a degree of fitness and mobility. Where the materials collected are entering into the formal, *for-profit* food economy, it is arguably also labour, even if unpaid. The flipside to commercial companies making use of volunteer labour is how not-for-profit entities make use of otherwise waged corporate labour. An important source of labour for spaces such as Tower Hamlets Cemetery Park and Edible Landscapes London is corporate volunteer days, involving groups from large companies—often from financial services—providing staff for social responsibility, team-building or training purposes, and sometimes payment or donation alongside this.

Participant observation clearly requires *participating* as well as *observing*, and this implicates the research in these labour relations. In my own case, I was happy to be involved, to actively undertake similar activities to those around me. In a number of instances, my own bodily labour was of particular use, for reaching higher points on trees or carrying heavier loads of fruit or equipment. I considered my labour as a part payment for access to the people, spaces and practices involved. Such labour was also subsidised by the aims of the research and the grant-funding that made it and my involvement possible.

6.3 Between foraging ethics and governance

In calling for a "foraging ethic", Richard Mabey (2006) asks,

> But could a built-up, over-farmed and over-populated country like Britain really sustain foraging as more than a minority habit? Don't we need a kind of foraging ethic, which regulates our leisure whims in keeping with the needs of other organisms in the eco-system? And, just as foraging is a metaphor for a larger connected relationship with nature, mightn't such an ethic have the rough shape for a model of responsible consumption?

As this thesis has sought to show up to this point, such concerns are only intensified when foraging is considered and practised in urban landscapes – with both increased pressures on and for green space and the multiplicity of meanings and uses attached to plants in cities. However, there are also some other implications to Mabey's rhetorical questions. What precisely does "keeping with the needs of other organisms in the eco-system" involve? As individual foragers, how do we come to understand and prioritise the needs of other organisms? Should we prioritise these needs over those of other humans in the context of city rife with iniquitous access to both food and nature? What is the logical or practical step between foraging as "a metaphor" and wider changes in consumption patterns?

We might also consider where the appropriate authority for regulating foraging practices, in cities, resides. This connects back to the politics of urban commons, especially where commoning arrangements are established via spaces and practices with legal status distinct from their social, cultural or economic meaning. Various entities and organisations have attempted to codify good practice when it comes to picking wild plants. The codified principles of the Association of Foragers outline a thorough basis for responsible, safe and healthy foraging for the organisation's members. While agreed upon internally, these principles extend good practice by sharing information and guidance to those with whom its members encounter, and by collaborating with management agencies, researchers and policy-makers. Importantly, these principles are sensitive to local concerns and context, pointing out how it is "impractical and undesirable to impose a comprehensive set of rules". They also value the importance of field observation and practice as sources of knowledge, in conjunction with more structured and institutionally-oriented scientific methods. Built into these principles is also the acknowledgement that the state of knowledge of ecologies is liable to change, requiring adaptation of foraging behaviour in line with recognised best practice. Although these principles are geared towards the activities and values of members, they are clearly a qualified endorsement and encouragement of foraging beyond themselves, noting the belief that "only through engaging with nature in practical and meaningful ways that we can truly support it" (Association of Foragers, 2016). Despite the open and forward-thinking qualities of the Association's principles, they are essentially a compact between a limited community, not a programme for wider society. Beyond the recognition that context is

crucial to framing best practice, they make no specific reference to foraging in an urban landscape as qualitatively different to that conducted elsewhere.

The Woodland Trust, a UK charity that advocates for and actively manages trees and woodland, provides a set of foraging guidelines for use by the general public. These range from ensuring the legality of picking at sites, ensuring the safety and edibleness of the plants taken, and minimising the ecological impact by not trampling areas, not collecting rare species, leaving "plenty behind for others and for wildlife", and only taking so much as an individual can eat. These eminently sensible suggestions stem from a largely permissive approach to foraging.

So-called "rules of thumb", raised in chapter 3, proliferate urban landscapes of and for foraging. Different quantities or proportions of a plant, bush or tree are often invoked as acceptable volumes for any individual to collect. From various sources, these have included: as much as can be carried by hand; as much as can be carried in one plastic bag; taking only 10 per cent of a plant; taking only 20 per cent of a plant. Rules of thumb are helpful in so much as they attend to the context in which edible plants are encountered. They do not require complex ecological or technical knowledge and can help guide pickers through hard-to-read landscapes. Precautionary principles are also at work when it comes to identification, with many suggesting to avoid any plants that cannot be identified with certainty, or avoiding fungi altogether, given their capacity to absorb pollutants. Such "rules" are not a question of external governance but self-regulation – avoiding that curiously affective impulse to pick everything. The sense that more-than-human ethics are already at work is expressed in the often-encountered utterance "leave enough for the birds". Moments of tactile encounter with the urban botanical necessarily involve consideration of the non-human but they also introduce the otherwise estranged human to wider ecologies of interconnection. The spatial segregation of contemporary urban food production and consumption means we are only abstractly invited to consider the welfare of the poultry lining supermarket shelves or the biopolitics of pest control in the cultivation of cereals, reaping an uncounted toll on the populations of wild birds that would otherwise share the same sources of food. The invocation of leaving enough for the birds acts both as an ethical riposte to the urge to overexploit a plant or tree *and* to the moral and affective concern of food waste – that surplus will not go *unused.* Of course, there is little possibility of knowing for sure that those left berries or fruits will in fact be consumed by birds or any animal in their current form, but acts as gesture towards the ecologies that continue regardless of human usage or understanding of food. Yet while acknowledging an urban nature beyond the human, this refrain also appears to be an epistemological surrender to those less knowable realms of the city. Not only does it require birds—creatures of quite some charismatic and cultural standing—to be gatekeepers

of these other-than-human ecologies, but offers a framing of food fixed on the edibleness *to humans* that limits the extent of our ethical concern. Decay and putrefaction are largely considered signs of waste, rather than the utilisation and extraction of energy by other organisms, through means other than alimentation.

That rules of thumb might be the most apt means to regulate the behaviour of foragers is revealing. Firstly, as an embodied practice, often learned through experience, it is no surprise that the body becomes a yardstick for its own engagement with the natural world. In the absence of coherent sets of rules (see below) and consistent surveillance or enforcement, and without a singular "community" through which to moderate overuse or damaging practices, the individual becomes the instrument of moderation. Unlike Foucauldian models of biopower, through which individuals ultimately regulate themselves and others on behalf of state and capital, via technologies of the body—what Patrick Joyce (2003) has framed as "liberal governmentality"—self-regulation on the part of foragers is done in a somewhat liminal space beyond these sources of power. These rules of thumb, which can themselves become guiding principles if employed widely enough, attend not to the sustainability of foraging as a collective practice—or practised across a population—but attend to the impact on the plant(s) and the immediate environment. While centring ethics of responsibility in foraging can foster affective relationships of care between people and plants, and wider natures, they are insufficient in and of themselves to ensure sustainable collection across the whole of an urban landscape such as London. Indeed, while proponents of urban foraging will often cast it as a publically-accessible means for the public to reengage with nature, in so doing, they rely on its continuing marginality and partial uptake, along with the non-structural factors that limit individuals' capacity to participate (knowledge, cultural norms, time constraint). The sustainability of contemporary urban foraging practices is partly constituted not by responsible conduct but the limited numbers who in engage in the activity. It is altogether uncertain if sustainable levels of foraging could be maintained if those non-structural barriers to entry were overcome or become obsolete. There is additionally the reflection that, given the fractured nature of London's landscapes and the uneven distribution of spaces and plants suitable for foraging, we may not be able to adequately think of the sustainability of foraging practices across the *whole* of London at all, and must rather consider it at a much more local level.

6.4 Coherence and connection

Many of the city foragers I encountered had their favourite spots in which to pick. These were shaped by convenience and location, personal or emotional connections, particular features, the relative freedom or the absence of surveillance a place offered, and the types of plants and foods available at particular times. However, almost none limited their activities to

a single space or site. The intrinsic mobility to foraging practices takes people across several different areas, particularly if they are walking with specific plants in mind. The proliferation of online resources, blogs and articles highlighting the "best spots" to pick also motivate people to travel from quite different areas of the city than would otherwise be convenient. Foragers, while largely aware of the broader legal context, are often not cognisant of the specific rules applicable to individual sites or across jurisdictions. The nature of fragmented management regimes for green space across the city, along with the disregard with which such differences are often treated by both ecologies and foragers alike, means these landscapes are altogether incoherent (despite various efforts to "join up" ecological infrastructures in London). Some organisations actively discourage picking in their green spaces, others formally prohibit foraging but turn a blind eye on most occasions, other organisations are (perhaps wilfully) unaware of foraging being practiced in the parks, while others tentatively permit or encourage it with provisos. Increased interest in designing "edible" spaces – playgrounds, parks, landscapes, cities – arguably present even more encouragement to pickers. Such incoherence is largely unhelpful, for pickers and for policymakers alike.

From the discussions conducted with green space managers across varied sites in the city, there appears to be only partial communication and coordination between them, made more likely when spaces are owned or overseen by an overarching authority, such as the City of London Corporation Open Spaces unit or the Royal Parks. Managers were more likely to coordinate and communicate with neighbouring and proximate sites, particular where similar issues and concerns were faced, but this did not necessarily mean alignment of regulation or enforcement. In many cases, this is because regimes of byelaws are not amendable by parks themselves but defer to the statutory power of other bodies. Surveying the current state of byelaw schedules employed by different green space authorities there is clearly quite some variety in terms of how recently they have been updated, their provisions for protecting plants and structures, and the degree to which management approaches are permissive, restrictive or unaware of foraging activities on their sites. A lack of resources and limited jurisdictional authority makes it difficult for individual parks to effectively consider the wider implications of their strategies. In the example of foraging, few have the capacity or authority to position the picking that goes on in their sites within the broader ecological landscape of the city. This also means overlooking the impact of their own policies and approaches to regulating foraging on other sites. For example, strict enforcement in one space is likely to deter people from foraging there but may well displace such activities to nearby or comparable sites elsewhere in the city.

Adoption of a broadly shared and publically accessible approach to foraging, including where and how it is unacceptable, would be largely beneficial to encourage sensible and responsible practices, encourage greater engagement with and appreciation of the city's flora, to generate a greater deal of legibility and transparency around urban green space, and to foster more interconnected forms of ecological management. The London Wildlife Trust's public position regarding foraging on its reserves is a valuable starting point for a coherent and joined-up approach across metropolitan jurisdictions. While the specific issue of foraging maybe a somewhat marginal concern, its impacts are felt more strongly in specific (and potentially sensitive) sites. Yet, irrespective of the nominal governance of individual spaces, it depends on and interconnects with wider ecologies and economies of the city. While the approach of prohibiting foraging through byelaws with selective enforcement may be a pragmatic one, an increase in foraging—for whatever reason—may test the limits and fairness of this strategy.

Conclusions

When I embarked on this research, I had expected—or more accurately, hoped—to encounter emerging and elaborate nascent economies of wild food collection in London, while fearing "urban foraging" would be merely a passing, "hipster" fad. The reality I found involved elements of these but much more besides and between.

There are several aspects I had hoped the research would cover that it ultimately could not. For most participants (in the research and, it seems, across London), although it is often a deliberate and conscious practice, foraging is rarely an individual's central source of subsistence or focus of attention. This makes sustained ethnographic work a challenge because it depends on being present at the times in which foraging is practiced—which is not always planned ahead of time—and touches on only fractions of informants' lives. The research has generated little quantitative data per se, which comparable studies have sought through survey methods. If a population or community of foragers could have been identified and enrolled early in the research this may have been a viable approach. However, the uneven and often sporadic activities make this kind of structured method impractical and for the most part, my primary research questions do not fit with such quantitative analysis. One possible additional approach, which only emerged as a possibility a while into the fieldwork, was the idea of constructing a webpage for the public collection of urban foraging stories, information, data and associated scraps. Such a compendium of information would have provided valuable wider reach than the largely in-person techniques I ultimately employed. In the absence of any existing reliable data—and given the challenges of collecting it through standalone research—a promising possibility for further research would be the inclusion of questions related to foraging and the collection of food included in the regular visitor surveys conducted by green space management in London.

The research and preceding discussion have shown that urban foraging provides potentially meaningful and proximate moments of encounter between people and plants. There are many benefits to such engagements, as well as practical and theoretical challenges it poses. Indeed, as was explored in depth in chapter four, the term "urban foraging" intimates a wide cadre of human-plant relationships, not a single mode of plant collection. The more tangible and definable benefits identified include the personal, the communal and the ecological. For many of those encountered during the research, contact with wild-growing or unattended plants in city contexts provided means of physical and mental well-being. They provide sanctuary from stresses associated with urban living but also motivation and means to access green space, in addition to a potential source of food. Plant walking also forms a mode of urban

discovery, offering residents a reason to visit spaces and parts of London which they would otherwise not have and foster a different sense of the city itself.

Part of this meaning is manifest in the various examples provided above, where urban foraging is the medium through which new social connections and moral economies of food are generated, such as fruit gleaning networks and practices of reciprocity and barter. Emerging practices of urban food sharing (Davies, 2019) are shifting patterns of production, distribution and consumption in cities across the world. Urban foraging, in as much as it is not conducive to the formal food economy—its lack of scale, questionable legality, and ill-defined standards of safety—can play a role in informal food economies but a "foraging ethic" may not spring from the praxis itself. The idea that transformational changes in mind-set and behaviour might be catalysed by a reframing and re-acquaintance with the possibilities and materialities of plants growing in one's neighbourhood is a hopeful one but not supported by a clear pathway to such change. That urban foraging requires such justification is testament to the complex scales of food and ecological citizenship mentioned in chapter 2 and part of the anxiety contained within framings of the Anthropocene. On a supposedly urbanised planet, even the most modest of engagements can be understood to have meaning beyond the themselves. If urban wild food is to play a part in emerging food sharing, it may require more concerted communal regulation, organisation and work on responsible practice.

Relatedly, urban foraging holds varied possible impacts for urban ecology. On the one hand, as intrinsically *cultural* landscapes, it is difficult to entertain a classical conservation attitude that requires the preservation of "pristine" nature by proscribing human extractive activities such as foraging in cities. This is especially pertinent in the context of urban societies increasingly detached from plants and green space, and where using urban plants as food could promote more observant and engaged publics. There is marked overlap in discourse between foraging practices and lay botanical knowledge and it is certainly plausible that increased potential for wild food gathering could prompt greater botanical literacy, with benefits in sustaining local, lay taxonomic, knowledge outside of the university. As it stands, foraging is not undertaken at levels that could be considered "unsustainable", yet this sustainability is largely dependent on its marginal practice, not systems of ethics, governance or regulation. The perceived threat of foraging to urban nature spaces is largely framed on *potential* damage, rather than observed damage but that concern is not necessarily unjustified. Just as the positive social and ecological benefits might be most significant at the local, neighbourhood, borough or metropolitan level (rather than for their transformational potential), so too negative impacts—direct and indirect—of urban foraging are likely felt there. Where limited green space is understood to have particular potential for wild food

collection, it may suffer disproportionate impacts as a result, particularly in densely populated areas. As the city densifies, the strain of amenity use for parks, commons and open space is likely to increase. Indeed, the need for space, recreation and escape in a changing urban context may well intensify the feelings and uses associated with seemingly "wild" areas, such as Walthamstow Marshes or Hampstead Heath. In some ways, conflict over the proper place of human activities in conservation settings is not altogether separate from more conventional, non-urban conservation (Adams, 2015). However, conversely, those managing urban nature spaces must increasingly demonstrate their benefit not only in terms of biodiversity values but also in terms of human amenity value – supported and funded in part by virtue of the number of people entering and using spaces. This not only has implications for the ecologies of fragile and marginal spaces but also speaks to the incomplete and expanse of urban ecology agendas in the visions and management of the city. For some foragers, rules banning foraging, albeit with limited enforcement, are a result of historic approaches to urban green space management, a precautionary approach in a context of incomplete information and limited resources, and genuine concern at what an increase in such activities might bring (despite currently being limited and a low-level concern). Overall, this underlines some of the tension as urban nature is rhetorically embraced at a policy level, what the implications are in practice of increased and varied nature engagement.

From the examples explored during the research, as well as existing studies into foraging in cities, such collection practices can foster meaningful affective geographies between people and plants. Such affects can be vehicles to generate interest, care and stewardship, critical resources in the context of widespread "plant blindness", and show the central importance of plants in the future of a sustainable food system. However, human-plant geographies can generate a range of affective responses, including fear, disgust and disillusionment and at a perceived loss of control that the presence of unintended or uninvited plants in urban space implies. Layered onto these varied botanical affects are the complex materialities and politics of food, itself a terrain inculcated with contested meaning. The social and scientific conflicts arising across a range of themes associated with food (from dietary advice to genetic modification) are testament to these. It would be a mistake to rely on or expect urban foraging to generate predictable or even responses or engagements.

Various practical policies that come to light during the fieldwork could help shape a positive future of and for urban foraging in London. Firstly, spaces and features in green space can be set aside for the specific purpose of picking and foraging. As the previous chapter explored, these can include community orchards, planted hedgerows, forest gardens, street trees or the inclusion of edible species in accessible spaces. These can direct potential pickers away from areas of particular ecological sensitivity. Secondly, green space managers and policy-makers

can seek to coalesce around a shared policy regarding foraging practices across the city. Foraging necessarily involves moving between spaces of different jurisdictions and ownership, meaning it is only logical that a consistent set of rules or best practices should apply across the city. That does not mean foraging be permitted in all spaces but it should be clear to interested members of the public how and why rules are in place. Restrictions in one place, if fully enforced, could displace those hoping to forage in London to other areas of the city, possibly placing undue pressure on other areas spaces without the same resources or regulatory capacity. Thirdly, as several green spaces have demonstrated, rather than an activity to be managed or designed out, foraging can be a valuable entry point into botany, increased awareness and appreciation of plants, nature more broadly, and a direct pedagogical function in the use of local urban green spaces. Where schools, community groups or local authorities are offering nature-engagement activities, such as public walks, forest schools, talks or events, foraging provides not only an interest topic but also an opportunity to discuss safe and responsible picking practices. On site, web-based or printed information on plants, uses, rules and good practice—although imparting a more structured and didactic experience—can be invaluable resources to foragers of different levels of experience. Planting and vegetation management regimes could be reassessed in terms of chemical use, landscaping, accessibility and plant choice, with the amenity of being usable foodstuffs in mind. One idea mentioned among fruit harvesters, easily achieved, is the provision of equipment—tarpaulins, crates, poles—for fruit picking in all libraries, for public use. These would signal and help enable an opening up of urban landscapes for the possibilities of foraging, and impart a degree of legitimacy.

Urban foraging does not only appeal to food as sustenance and subsistence but also adventure, discovery and exploration as a human behaviour. At times, this can butt up against the feelings of local residents reclaiming a stake and interest in their neighbourhood spaces. How can a city such as London accommodate these drives, while also protecting the integrity of limited spaces of nature? Urban botanical surveying is one alternative form of plant walking that is arguably lighter in impact than foraging but offering some of the same qualities of discovery and reframing urban landscapes. These activities add to the state of ecological knowledge, can feed into cartographic projects (e.g. GiGL) and data records (such as Red Lists and SSSI designations) and connect the varied meanings of “urban foraging” to other conceptualisations of urban nature. There is a corollary between botanical surveying and other forms of mobile digital games such as geocaching or even Pokémon Go, for fostering new awareness of place and with potential benefits for conservation and ecology (Dorward et al., 2016).

Nevertheless, for the most part, the examples and interactions explored during the field work and in previous chapters suggest that urban foraging is not wholly a question of subsistence, politics or food sharing. It appears a form of "poaching" (De Certeau, 2013) the city – of moving to make sense of it and as a means of resistance to imposed 'birds eye' perspectives that impose certain material and regulatory forms, ignorant of the practices from which the city is constituted. Urban foraging can be both conscious and unconscious; deliberate and spontaneous. It may aesthetically resound with certain ecological framings of the city but it also resists attempts to formalise and legitimise. This is a challenge for thinking through ways to encourage or support future forms of urban foraging praxis.

There is no way of knowing if current foraging practised in London will dwindle away, remain at current levels, or see increases over the coming years. We can only point towards some of the factors that may affect this. Some pertinent ones include possible changes in the relative security and availability of otherwise forageable foods; increases or instability in prices or decreasing levels of disposable income; movement of people to or from the city who hold ethnobotanical knowledge and practice foraging; increases in public knowledge and awareness of plants and their uses; changes in the availability of edible plants across the city or public access to the places in which they can be found; changes in attitudes or policies from green space-managing authorities and their staff.

I would like to conclude by considering some of the implications of the increasing invocation of the "urban commons" initiated in chapter 5 and for thinking about urban futures and food. For some, the ecumenical quality of the urban commons and their ability to draw together a host of disparate strands of collective action and governance are part of their strength. However, this promise should not preclude a close reading of the meaning of the commons through history and attention to the specific conditions in which commons have functioned and/or been lost. Comparable systems of collective management of resources around the world, and similar threats to their continued existence, should not mean conceptually universalising those experiences. Indeed, the tragedy of "enclosure" is one that first and foremost affects those most closely connected (geographically, economically, or socially) to a common, rather than a universally felt loss. The example of the "preservation" of London's commons serves to unsettle the notion of "enclosure" as a universal process i.e. that today's "new" enclosures are fundamentally the same as those occurring in early modern England[97]. Enclosure is not the only concern when we differentiate between the *common* and the *public*. While cities might be imagined as landscapes levelled for the free circulation of people, urban foraging brings to the fore some of the ways in which urban spaces can engender

[97] Enclosure retains a specifically spatial connotation and the particular material and symbolic meaning of fencing in the English context of the commons.

alternative topographies and unevenness in social and material flows. Therefore, proximity, whether for foraging or the enjoyment and utility of urban nature spaces, continues to matter.

"Commons" can denote political aspiration without providing the practical instruments for them to function and, crucially, be recognised and reinforced by wider structures. For all their promise and effectiveness, the ideas of the urban commons do not represent a ready-made blueprint for the collective ownership and management of public urban resources. Yet, the aesthetic of "the common", which might be peculiar to the history of land use and cultural value in England, is a powerful, lingering one. The extent to which common land is associated with the rustic image of foraging, grazing animals, undulating topography, unfenced boundaries, unplanned paths, and assemblages of semi-natural vegetation, also means that the presence of these features may be suggestive of common ownership or management where no such systems exist. These material presences can both reinforce and undermine disparate ecological imaginaries of the city and provide a helpful reminder of the importance of critically appraising cultural landscapes, not least to note that their similar forms may result from distinct social and economic arrangements.

To imagine the food system as a form of common (or "a commons"), while potentially meaningful in a broad political sense, becomes practically problematic in the absence of clear boundaries to define it (Vivero Pol, 2017). As discussed in earlier chapters, urban foraging helps expose some of the inherently unsteady ground on which ontologies of food exist. This is not to detract from the urgency of addressing the material and structural failures of food production, provisioning and politics but that an overly abstract or general propositions of "the commons" may not be helpful. Indeed, food and its associated activities are so diverse, contingent and embodied that the observation that it is a shared facet and concern for humans everywhere is a true but limited analytic. Indeed, what this research has sought to show in part is when we talk about "food", we are not describing an object, "thing" or material resource per se but the *relationships* between people, plants and their geographies. With this in mind, we can begin to make sense of how certain materials, in certain conditions come to be understood and utilised for human nourishment – and how plant materials lose this status or acquire other, competing social meanings.

Another notable facet of the research has been the importance of language for how we imagine and interact with nature. Although "urban foraging" its nominal focus, a significant facet of the research's contribution is in the hope of fostering an awareness of how subtle differences within and between linguistics practices can denote important differences for the ecologies and economies of gathering. With regards the field of commons scholarship and praxis, it could benefit from greater attention to how vernacular language and terminology

could help articulate the important local differences between different forms of common and common-resource management. Rather than analytically pull all such systems into a singular conceptual frame, observing and maintaining linguistic pluralism would help attend to aspects of local difference and particularism, but also provide a basis for comparison and learning across geographies of commons. Finally, the research was necessarily limited by its dominant focus on an Anglophone context. Where possible, different terms were brought into the analysis and discussion but this was partial and incomplete. As was made clear in chapter 5, foraging as a component of material culture and interaction with the environment is modified by the language used to describe (or not) its practices and contexts. In an urban landscape, separate from "traditional" areas of foraging, language tied to specific geographies can become similarly detached and repurposed as the practices themselves, and enter into use and circulation distant from their origins.

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Imperial War Museum Archives, London

Appendix I: Scheduled interviews & informants - REDACTED

The list below details those with whom scheduled interviews were conducted, the further list details those contributed substantive input to the research outside of a scheduled interview setting. The provision of an interview is not necessarily indicative of having contributed more or less to the research. Many of those not "formally" interviewed were consulted on multiple occasions. The input of the majority of interviewees was also not limited to a single occasion but in a variety of contexts.

Name/Affiliation	Date	Location

Further informants - REDACTED

Appendix II: Illustrative walks and events

Location	Date	Type
Springfield Park	30 January 2016	Foraging walk
Shoreditch	30 April 2016	Botany walk
Castle Climbing Centre Garden	01 May 2017	Herb walk
Walthamstow Wetlands	22 April 2017	Botany walk
Tower Hamlets Cemetery Park	24 May 2017	Foraging walk
Borough	26 May 2017	Foraging walk
Olympic Park	02 June 2017	Botany walk
East India Quay	13 June 2017	Botany walk
Finsbury Park	20 June 2017	Foraging walk
Walthamstow Marshes	24 June 2017	Community Haystacks
Kennington	03 July 2017	Community tree walk
Crystal Palace Park	16 July 2017	Foraging walk
Tottenham Marshes	22 July 2017	Fruit harvesting
Walthamstow Marshes	12 August 2017	Herb walk
Scotney Farm, Kent	08 September 2017	Hopping trip
Fryent Country Park	30 September 2017	Foraging walk

Appendix III: Botanical Glossary

Below is provided an indicative, non-exhaustive list of some of the more commonly gathered food and medicinal plants in London, and featured during the thesis. The information provided for each species varies and is thus not intended for purposes of cross-comparison. The text is taken—and in some cases adapted—from the following sources:

Woodland Trust: https://www.woodlandtrust.org.uk/visiting-woods/trees-woods-and-wildlife/british-trees/

Wildlife Trusts: https://www.wildlifetrusts.org/wildlife-explorer

Plants for a Future: https://pfaf.org/user/Default.aspx

Plantlife: https://www.plantlife.org.uk/uk/discover-wild-plants-nature/plant-fungi-species/

Wild Food UK: https://www.wildfooduk.com/wild-plant-guide/

Scientific Name	Common name(s)	Parts used
Malus domestica	Apple	Fruit, oil, pectin, blossom
(Non-native) Small to medium-sized trees up to 10m high. There are more than 7,500 cultivars of apple around the world, each with different characteristics. Depending on their qualities, some of these varieties are grown specifically to eat raw, cook or make cider with. Domesticated apple originated in Central Asia, where its wild ancestor, *Malus sieversii*, is still found today. Apples have been grown for thousands of years in Asia and Europe, and were taken to North America by European colonists. Leaves: dark green and typically oval in shape with serrated edges. Underneath, the leaves are slightly furry or woolly. Flowers: five-petalled and white, with hints of pink. They grow in clusters, known as blossom, and put on a stunning display in May and June. Fruits: large green to red fruits can be sweet or sour. Carpels form as the fruit develops, that hold dark brown seeds. Habitat: Apple often escapes and can be found naturalised in hedgerows and thickets throughout the UK. These are small trees of hedgerows, scrub, copses, roadsides and rough ground, usually occurring as single trees.		
Malus sylvestris	Crab Apple, European Crab Apple	Fruit
(Native) One of the ancestors of the cultivated apple, it can live to up to 100 years. Mature trees grow to around 10m in height. They have an irregular, rounded shape and a wide, spreading canopy. With greyish brown, flecked bark, trees can become quite gnarled and twisted, especially when exposed, and the twigs often develop spines. This 'crabbed' appearance may have influenced its common name, 'crab apple'. The crab apple is one of the few host trees to the parasitic mistletoe, *Viscum album*, and trees are often covered in lichens. The trees are often planted in commercial orchards as their long flowering period makes them excellent pollination partners for cultivated apples. The fruit can be roasted and served with meat or added to ales or punches. More commonly it is used to make crab apple jelly, and also as a natural source of pectin, for setting jams. Leaves: The brown and pointed leaf buds form on short stalks, and have downy hair on their tips, followed by glossy, oval leaves, which grow to a length of 6cm and have rounded triangular teeth. Flowers: in spring, the sweetly scented blossom is pollinated by bees and other insects, which develops into small, yellow-green apple-like fruits, around 2-3cm across. Fruits: sometimes the fruits are flushed with red or white spots when ripe. Birds and mammals eat the fruit and disperse the seeds.		

Pyrus communis	Wild Pear, Common Pear	Fruit
(Non-native) Pear trees are deciduous and usually grow to about 12 metres but some can reach up to 20 metres at a fast rate. It is in flower from April to May, and the seeds ripen from October to December. The species is hermaphrodite (has both male and female organs) and is pollinated by Insects. . The crown of the tree is domed and the branches can have spiny twigs. The bark is grey-brown and broken into small square shapes. Leaves: alternate, oval, pointed leaves with toothed edges and long stalks. The leaves are light green in spring, turning to gold and then black in autumn. Flowers: white throughout and appear in clusters up to three centimetres across. Fruits: grow on long stalks and ripen to a golden yellow colour with sweet, grainy textured flesh.		
Prunus cerasifera	Cherry Plum, Myrobalan Plum, Newport Cherry Plum, Pissard Plum	Fruit
Prunus cerasifera is a deciduous tree, growing to eight metres and is one of the first prunus species to flower in spring. The bark is dark grey and develops fissures with age, and twigs are green and covered in a fine down when young. Cherry plum is often grown as an ornamental tree for its early display of flowers. Young trees are often used as understocks (a root which another plant is grafted on to) for domestic plums. Native to Europe and Asia, cherry plum is often planted for fruiting hedges. Leaves: green, slender and glossy, with fine hairs on the underside. Flowers: white, and usually grow singularly in late-winter to early spring. Fruits: after pollination by insects, the flowers develop into yellow or red cherry-like fruits.		
Prunus spinosa	Blackthorn, sloe berry	Fruit
(Non-native) The timber is hardwearing and tough, light yellow with a brown heartwood. It was traditionally used for making walking sticks and tool parts. It burns well, and is often used as firewood. Blackthorn is used as a hedging shrub, particularly in wildlife gardens. The sloes are used for wine making and preserves, and, most commonly, flavouring gin. Spiny and densely branched, mature trees can grow to a height of around 6-7m, and live for up to 100 years. The dark brown bark is smooth, and twigs form straight side shoots, which develop into thorns. Leaves: slightly wrinkled, oval, toothed, pointed at the tip and tapered at the base. Flowers: blackthorn is a hermaphrodite, meaning both male and female reproductive parts are found in one flower. White flowers appear on short stalks before the leaves in March and April, either singularly or in pairs. Fruits: once pollinated by insects, the flowers develop into blue-black fruits measuring 1cm across.		
Rubus fruticosus	Blackberry, bramble, briar	Fruits, leaves
Taxonomically, *Rubus fruticosus* is treated as a broad complex or aggregate of several slightly differing species that belong to sections and subsections. Over 300 microspecies have been recognised in the UK. As a result it is variable in leaf shape and plant form. Bramble has long, thorny and arching stems and can grow up to 2m or more high. It has a very wide ecological tolerance and can grow almost anywhere, but tends to reach maximum growth and diversity on acidic soils. This species spreads by bird-dispersed seeds and by tip-rooting stems. Leaves: alternate and palmately compound. Each leaf is divided into 3 or 5 serrated, shortly stalked, oval leaflets. Leaves are dark green on top and pale beneath. Leaf stalks and mid-ribs are prickly. Flowers: clusters of white or pink flowers appear from late spring to early summer. They are 2-3cm in diameter with five petals and many stamens. Fruit: the fruit, known as a blackberry, is 1-2cm in length and ripens from green through red, to deep purple and finally black when ripe in late July. The fruit of the bramble is not a true berry - botanically it is termed an aggregate fruit made up of twenty to fifty single-seeded drupelets. Habitat: Bramble grows almost anywhere throughout the UK. It is common in woodland, hedges, scrub and wasteland. Flowers appear in June-July and the fruit ripens and turns black from late July.		
Rosa canina	Dog Rose, Rosehip	Flowers, hips
A thorny climber, dog rose has curved spines to gain a purchase as it weaves in between other shrubs and uses them to support its growth. There are many species of wild rose found in the UK which are all very similar and difficult to identify. Roses are also commonly planted in gardens and some of these have escaped into the wild. Rose hips are high in vitamin C and were traditionally used to make syrups taken to boost levels. Flowers: large pink or white five petalled flowers with a faint		

sweet smell. Fruit: striking red oval shaped hips (15-20 mm) form in small clusters. Each hip contains many seeds. Leaves: made up of 2-3 smaller leaflets. Habitat: found in hedgerows, woodland edges and on scrubland. Dog rose is more commonly found in the south of the UK but can be found all over, especially in heavy soils.		
Urtica dioica	Common Nettle, Stinging Nettle	Leaves
(Native) Patch-forming plant with stinging leaves and tassels of tiny flowers. A very common plant, the Stinging nettle can be found growing in gardens, hedgerows, fields, woodlands and many other habitats. Its preference for damp, fertile and disturbed ground makes it a good coloniser of places enriched by human activities, such as agriculture and development. Stinging Nettles are great wildlife attractors: caterpillars of the Small Tortoiseshell and Peacock butterflies use them as foodplants; ladybirds feast on the aphids that shelter among them; and seed-eating birds enjoy their autumn spoils. Identification: look for the hairs on its stem, its drooping, catkin flowers, and oval, toothed leaves.		
Castanea sativa	Sweet Chestnut	Nuts
(Non-native) Mature sweet chestnut trees grow to 35m and can live for up to 700 years. The bark is grey-purple and smooth, which develops vertical fissures with age. The twigs are purple-brown and buds are plum, red-brown and oval in shape. The sweet chestnut is thought to have been introduced to the British Isles by the Romans but today it can be found commonly throughout Britain in woods and copses, especially in parts of southern England, where it is still managed to form large areas of coppice. Leaves: oblong and toothed with a pointed tip, and feature around 20 pairs of prominent parallel veins. Flowers: long, yellow catkins of mostly male flowers, with female flowers at the base. Sweet chestnut is monoecious, meaning both male and female flowers are found on the same tree. Fruits: after pollination by insects, female flowers develop into shiny red-brown fruits wrapped in a green, spiky case. The trees begin to bear fruit when they are about 25 years old.		
Taraxacum officinale	Dandelion Dandelion, Dent-de lion, Pissabed, Piss-en-lit	Leaves, flowers, root
Eaten in times of famine the roots contain starch. The leaves are diuretic. The dandelion has many food uses such as salad, a green vegetable, a flavouring for soft and alcoholic drinks, a substitute for coffee and a calorific staple. Leaves: Green, heavily toothed edges and growing in a rosette. Exudes a milky sap when cut. Flowers: Quite large yellow flowers made up of many fine, long, thin petals turning into sphere of seed parachutes. Long, thin and hollow stem for the flower, the leaves have no stem and grow from the base of the plant. Habitat: Pasture, fields, hedgerows, gardens, roadside, woods and waste ground, pretty much everywhere.		
Galium aparine	Cleavers, Goosegrass, Sticky Willies	Leaves, stems
Leaves and stem: Small, thin, hairy, green leaves growing in small rosettes along the vertical stem. Has a square stem covered in many tiny hooks. Flowers and seeds: Tiny, white, four petaled flowers. Small round hook laden seeds. Habitat: Hedges, path and roadsides, waste ground and woodland.		
Corylus avellana	Hazel	Nuts
(Native) Hazel is often coppiced, but when left to grow, trees can reach a height of 12m, where it can live for up to 80 years (if coppiced, hazel can live for several hundred years). It has a smooth, grey-brown, bark, which peels with age, and bendy, hairy stems. Leaf buds are oval, blunt and hairy. Leaves: round to oval, doubly toothed, hairy and pointed at the tip. Leaves turn yellow before falling in autumn. Flowers: hazel is monoecious, meaning that both male and female flowers are found on the same tree, although hazel flowers must be pollinated by pollen from other hazel trees. The yellow male catkins appear before the leaves and hang in clusters, from mid-February. Female flowers are tiny and bud-like with red styles. Fruits: once pollinated by wind, the female flowers develop into oval fruits, which hang in groups of one to four. They mature into a nut with a woody shell surrounded by a cup of leafy bracts (modified leaves). Habitat: It grows across much of Europe, parts of north Africa and western Asia. In the UK it's often found in the understorey of lowland oak, ash or birch woodland, and is also found in scrub and hedgerows. Hazel wood can be twisted or knotted, and as such it historically had many uses. These included thatching spars, net stakes, water divining sticks, hurdles and furniture. Hazel was also valued for its nuts, or 'cobs'. Today, hazel coppice has become an important management strategy in the conservation of woodland habitats for wildlife.		

The resulting timber is used in many ways, and is becoming increasingly popular as pea sticks and bean poles, used by gardeners. Hazel was grown in the UK for large-scale nut production until the early 1900s. Cultivated varieties (known as cob-nuts) are still grown in Kent, but most of our hazelnuts are now imported.		
Betula pendula	Silver Birch, Warty Birch, European White Birch, East Asian White Birch	Leaves, sap
(Native) The Birch is a pioneer species and was one of the first trees to colonise Great Britain after the last ice age but short lived so it helps form woodland but is soon overtaken by other trees. Silver birch can be used to improve soil quality for other plants to grow. Its widely spread roots bring otherwise inaccessible nutrients into the tree, which are recycled on to the soil surface when the tree sheds its leaves. Leaves: Green, generally ovoid although sometimes bluntly heart shaped with serrated, sometimes doubly serrated edges. Flowers: The male and female catkins look similar with the male catkins being thinner and generally longer than the females. Both appear in April and May. Bark: The bark of the Silver Birch is very distinctive and can appear smooth silver or white with horizontal striations when young to having deeply grooved black, rough, patches. Habitat: Woodland, parks, hedgerows, gardens, avenues and waste ground.		
Tilia x europaea	Lime Tree, Linden Tree	Leaves, flowers
(Native) A hybrid between small-leaved and large-leaved lime, common lime has characteristics of both species. The bark is pale grey-brown and irregularly ridged, with characteristic large burrs and leaf shoots at the base of the tree. Twigs are slender and brown, although they become red in the sun.The young, translucent leaves are used for salads and the fruit, including the leaf bract, are dried and made into Linden tea or Tilluel. Leaves: Round or heart shaped green leaves. The lighter almost translucent young leaves being the edible part. Flowers: This consists of a leaf bract with some small yellow and white flowers which will turn into 'berries' hanging underneath the bract. Limes generally blossom in June and July. Trunk: Younger trees have quite a smooth grey bark which can become craggy and gnarled. Suckers or shoots grow from around the base and higher up the trunk on many specimens and can aid identification from afar. Habitat: Along tree lined streets, parks and mixed woodland. Leaves: leaf buds are red, with one small scale and one large scale, resembling a boxing glove, and form on long leaf stalks. The leaves are dark green in colour, heart-shaped and flimsy and measure 6–10cm in length. They have a lopsided, lobed leaf base and tufts of white hairs in vein axils, and fade to a dull yellow before falling in autumn. Flowers: limes are hermaphrodite, meaning both the male and female reproductive parts are contained within one flower. Flowers are white-yellow, five-petalled and hang in clusters of 2-5 and have a drooping habit. Fruits: once pollinated by insects, they develop into round-oval, slightly ribbed fruits, with a pointed tip.		
Reynoutria japonica	Japanese Knotweed, Monkeyweed, Elephant Ears, Donkey Rhubarb	Stems, leaves, roots, shoots, seend
Japanese knotweed was introduced to the UK from Japan in the 19th century as a garden plant, but has since become established in the wild, rampaging across roadside verges, riverbanks and waste ground. It is a fast-growing, invasive weed, which prevents other native species from growing, and is often used to highlight the issues of introducing alien species. Many organisations are committed to the removal of this invasive plant in order to allow our native wildlife to thrive. Japanese knotweed is a very tall plant with large triangular leaves, hollow, red stems that are a bit like bamboo, and small, white, tufty flowers that appear in late summer and autumn.		
Achillea millefolium	Yarrow, Woundwort, Milfoil, Staunchweed, Herbe Militaris	Leaves, flowers
Yarrow is a tough plant of many grasslands, from lawns to verges and meadows; a strong-smelling perennial, clusters of white, flat-topped flower heads appear from June to November. Yarrow has been used to help restore arable land to grassland by sowing it along with other natives. Yarrow has dark green, finely divided, feathery leaves. It has flat-topped clusters of white flower heads, each comprising yellowish disc florets and pinky-white ray florets - together they give the impression of one flower with a yellow centre and white petals.		
Plantago lanceolata	Ribwort Plantain	Seeds, leaves

Ribwort plantain is a plant of grasslands, field edges and cultivated ground and tracks, and regularly pops up in lawns as a weed. It flowers between April and October; in contrast to the long flower spikes of Greater plantain, the short, oval flower heads of Ribwort plantain appear as if balanced on the top of their thin, wiry stems. Its seed heads remain for most of the winter providing food for Goldfinches and other seed-eating birds. Ribwort plantain has spear-shaped leaves that form a rosette at the base of the plant. Short stems grow from its leaves, with compact flower heads that display protruding white stamens. The flower heads gradually turn brown and seed.		
Fragaria vesca	Wild Strawberry	Fruit
Leaves: Simple three lobed leaves with serrated edges. Flowers: The flower has five white petals that are widely spaced with leaf bracts visible between the petals. Fruit: A soft red fruit with the seeds on the outside. Habitat: Mixed woodland or hedgerows, usually in partial shade.		
Stellaria media	Chickweed Common Chickweed, Stitchwort, Starweed, Chickenwort, Craches, Maruns, Winterweed	Leaves, stems
Common chickweed is a common wildflower, found everywhere from coastal cliffs to gardens, farmyards to roadside verges. It particularly likes disturbed ground and is sometimes considered a weed. As its common name suggests, it was used as feed for chickens and cage-birds and is still popular today. Common Chickweed is an annual that produces small white flowers that can be seen all year-round. Common chickweed has small, star-like, white flowers, and oval, fresh green leaves. Its greatly branching stems often lie along the ground. The leaves of Common chickweed are sometimes eaten in salads and stir-fries. Habitat: This plant seems to prefer open woodland but can be found in gardens, parks, waste ground and field edges.		
Anthriscus sylvestris	Cow Parsley	Leaves, stems, flowers
Cow parsley is a hollow-stemmed, tall plant that grows rapidly in the summer before dying back. It likes shady habitats in particular, and can be found decorating woodland edges, roadside verges and hedgerows with masses of frothy, white flowers. These flower umbels (umbrella-like clusters) appear from May until June. More elegantly known as 'Queen Anne's Lace', cow parsley is attractive to a huge number of creatures, from orange-tip butterflies to marmalade hoverflies, and even rabbits. It's also attractive to us humans as its young leaves can be added to salads as 'Wild Chervil'. Cow parsley has large, flat umbrellas of small, white flowers, and large, fern-like leaves. When crushed between the fingers, the leaves produce a strong, aniseed-like scent. One of several common members of the carrot family, this is the most abundant, and the earliest-flowering of the umbellifers.		
Heracleum sphondylium	Hogweed, Cow Parsnip	Flowers, seeds
Leaves: Starting tightly curled and pale green opening out into large dark green roughly lobed, matt leaves covered in tiny hairs. Stem is green to dark red/brown/purple. Fleshy, thick, hollow and covered in small hairs. Flowers: A sheathed bud at the base of a leaf opens out into a large white umbel made up of many tiny flowers. Seeds: Small flat green discs with red markings growing in clusters on the umbels. The seeds are still edible when mature and brown. Habitat: Wood edges, beside paths, roadside verges and many other environments. Can be confused with the related by invasive and phytotoxic Giant Hogweed, *Heracleum mantegazzianum*		
Crataegus (spp.)	Hawthorn, May, Maythorn, Whitethorn	Leaves, fruits
Mature trees can reach a height of 15m and are characterised by their dense, thorny habit, though they can grow as a small tree with a single stem. The bark is brown-grey, knotted and fissured, and twigs are slender and brown and covered in thorns. It often hybridises with the UK's other native hawthorn, Midland hawthorn *(Crataegus laevigata)*. Both species are similar and can be hard to tell apart. Common hawthorn can support more than 300 insects. It is the foodplant for caterpillars of many moths, including the hawthorn, orchard ermine, pear leaf blister, rhomboid tortrix, light emerald, lackey, vapourer, fruitlet mining tortrix, small		

eggar and lappet moths. Its flowers are eaten by dormice and provide nectar and pollen for bees and other pollinating insects. The haws are rich in antioxidants and are eaten by many migrating birds such as redwings, fieldfares and thrushes, as well as small mammals. The young leaves, flower buds and young flowers are all edible. They can be added to green salads and grated root salads. The developing flower buds are particularly good. The haws can be eaten raw but may cause mild stomach upset. They are most commonly used to make jellies, wines and ketchups. It has long been used as a hedging plant and is a popular choice in wildlife gardens. Leaves: around 6cm in length and comprised of toothed lobes, which cut at least halfway to the middle or 'mid-rib'. They turn yellow before falling in autumn. Flowers: hawthorns are hermaphrodite, meaning both male and female reproductive parts are contained within each flower. Flowers are highly scented, white or occasionally pink with five petals, and grow in flat-topped clusters. Fruits: once pollinated by insects, they develop into deep red fruits known as 'haws'.		
Sambucus nigra	Elder, Elderflower, Elderberry	Flowers, fruits
Mature trees grow to a height of around 15m and can live for 60 years. Elder is characterised by its short trunk (bole), and grey-brown, corky, furrowed bark. it has relatively few branches. Elder wood is hard and yellow-white. Mature wood is used for whittling and carving, while smaller stems can be hollowed out to make craft items. The flowers and berries are mildly poisonous, so should be cooked before eating. The leaves are also poisonous. The flowers are often used to make wine, cordial or tea, or fried to make fritters. The vitamin C rich berries are often used to make preserves and wine, and can be baked in a pie with blackberries. They are also used to make natural dyes. Leaves: pinnate (resembling a feather), with 5-7 oval and toothed leaflets and smell bad when touched. Flowers: borne on large flat umbels, 10-30cm across, the individual flowers are creamy coloured, highly scented, and have five petals. Fruits: after pollination by insects, each flower develops into a small, purple-black, sour berry, which ripens from late-summer to autumn. Elders are hermaphrodite, meaning both the male and female reproductive parts are contained within the same flower.		
Mahonia aquifolium	Oregon Grape	Fruits
A common member of the Barberry family that can now be found in parks, gardens and some woodland. Leaves: Shiny with sharp spikes, looking just like a holly leaf, with woody stem. Flowers: Small bright yellow flowers hanging in dense clusters above the leaves in either Spring, Summer, Autumn or even Winter. Fruit: Long clusters of Purple to Black berries covered in a light bloom giving them a blue appearance. Habitat: Mainly in gardens and parks but occasionally spread to the wild		
Alliaria petiolata	Garlic Mustard	Leaves, flowers
Garlic mustard, also known as 'Jack-by-the-hedge', likes shady places, such as the edges of woods and hedgerows. It can grow to over a metre tall and has small white flowers that appear from April. It is a biennial plant, so takes two years to complete its lifecycle. It grows young leaves in its first season, which it keeps over winter, and then flowers in the spring of its second year. The heart-shaped leaves of Garlic mustard are smooth and hairless, and rather like those of nettles; when crushed, they smell of garlic. Its small, white flowers have four petals in the shape of a cross and grow in clusters at the ends of the stems.		
Allium ursinum	Wild Garlic, ramsons, Ramsons, Broad Leaved Garlic, Wood Garlic, Bear Garlic	Leaves, flowers
Also known as ramsons, this plant carpets the ground in areas of woodland across the UK giving off a distinctive odour of garlic. Leaves: long, pointed and oval in shape with untoothed margins. Leaves grow from the plant base, from the bulb of the plant itself. Leaves have a garlic scent. Flowers: white in colour. Six petals make up a flower, with around 25 of these forming the rounded shaped flower cluster. Flowers are on leafless stalks. Fruit: a capsule which has black seeds inside. Habitat: Located across the UK this plant favours deciduous woodland, usually on calcareous (chalky) soil. It can also be found in scrub and hedgerows but prefers damp areas.		

Appendix IV: Post-Script

Locating an emerging, personal interest in urban foraging

Back in 2013, we were sat in the back room of a pub in Homerton, with the sounds of a Sunday afternoon game of bingo ringing through from the front bar of the old Victorian building. The aged crowd of locals interrogating their numbered cards stood in somewhat stark contrast to the assorted, younger patrons—fashionably dressed for the most part—occupying the sprawling garden and quasi-outdoor areas of the recently, shabbily refurbished establishment. Amid this, my friend and I supped our beers, dressed for the outdoors, with briar-scratched legs and purple-stained fingertips alongside our carrier bags full of blackberries freshly acquired from the nearby Hackney Marshes. Here, on the edges of the Olympic Park and amid an area of London rich in history but fast-gentrifying, a functional space accommodating the varied needs of those who had frequented the pub for years and those recently arrived was a most valuable one.

We—an old university friend and I—had spent the previous couple of hours immersed in bramble, out on the marshes flanking the western banks of the river Lea. As I came to discover during the course of this research, the changes in landscape as one moves through the verdant tracts of the lower Lea valley are quite marked. Hackney Marshes had always been more synonymous with its dozens of football pitches, upon which my father had played in his youth. Yet, we had come to believe that some of the choicest blackberries were also to be found there. I knew a cousin of mine had picked and preserved fruit from "the marshes" for years, regardless of the ebbs and flows that have characterised the wider popularity of foraging and wild food. I don't recall our exact reasons for venturing out that day other than distraction, recreation and the attractive combination of nature and free food.

At the outset of our walk, our eyes were fixed only on the plumpest and sweetest dark-jewelled berries we could find, filling a multitude of plastic containers as we went. As we tired, having to edge further into the briar and scrub in search of the better fruit—further than the pickers who had clearly preceded us—we increasingly accepted whatever was adequate and within reach. In reality, better and more accessible stands of blackberries can be found further to the north on Walthamstow Marshes but such subtle insights eluded us at the time. Indeed some of the best-looking fruit hung tantalisingly out of reach over the spiked steel fencing of the Middlesex Filter Beds Nature Reserve. This set-aside space (albeit it one actually accessible to the public) is illustrative of the patchwork landscape of the valley and the city more broadly; former industrial sites, having given way to new infrastructures, economies and a reclaimant nature, increasingly protected and curated with non-human denizens, as well as human visitors, in mind.