

Batterbury SPJ and T Dant. In press. The imperative of repair: fixing bikes – for free. In P. Laviolette and F. Martinez (eds.) Ethnographies of Repair. New York: Berghahn.

The imperative of repair: fixing bikes – for free

Simon Batterbury and Tim Dantⁱ

Introduction

This chapter discusses how we can interrupt the cycle of consumption and disposal to reuse a relatively simple and ubiquitous item – the bicycle. We compare two recycling projects that are non-commercial, community-based and involve volunteers who recycle, redistribute and assist with the repair of bicycles. The first is a project that repairs donated bikes and gives them to asylum seekers and refugees who have moved into the area. Lives broken by the disruption of seeking refuge in another country are being helped to be repaired with the life-enhancing mobility of a bicycle. The second, is a network of community bike workshops open to anybody, which help owners to keep their bikes on the road by teaching maintenance skills (Batterbury and Vandermeersch 2016). Being able to repair their bike frees the user from having to pay and wait for a professional service to recover their velomobility. Both types of project operate at the margins of the system of capitalist production and consumption in which bicycles are originally manufactured. Both counter the tendency of advanced industrialised societies towards consuming new replacement goods rather than repairing the broken.

The bicycle is a cheap and uncomplicated means of transport that when in working order needs nothing other than the application of human energy to enable the seated rider to travel much faster over longer distances than the upright pedestrian. For more than a century this basic machine has enabled individual people to move about their environment as and when they wish. There has however been a significant decline in cycling as car ownership has increased all over the world (Parkin et al. 2007). In the UK the proportion of all journeys by bicycle fell from 37% in 1949 to 1% in 2000, despite sales of bicycles continuing to be two and a half times that of cars (Horton et al. 2007). Whether or not to cycle for transport utility is linked to personal identity, the roads one has to ride on and the distances to work and shops (Skinner and Rosen 2007). There is also a suggestion that, in the US at least, cycling is an inverse marker of social status. As Gilroy points out, a car culture can distinguish a minority group from less fortunate groups living ‘...within the veil of scarcity defined... by the alternative transit order of the bicycle’ (2001: 102).

One aspect of taking responsibility is to repair and re-use the things we have. In doing so, we learn how they are made, what materials they use and how their useful life can be extended (Graham and Thrift 2007; Gregson et al. 2009; Martinez 2017). Bicycles, while simple machines, require maintenance and occasional repair. Cycling is a sustainable, non-carbon

generating mode of transport. Repairing a bicycle enhances the mobility of the user, engages her or him with how and what it is made from and how it's useful life can be extended to save the energy and raw materials needed to replace it. When someone voluntarily helps to overcome its brokenness, it is an act of kindness and care between those with skills and the bicycle user. The material interaction between the experienced repairer and the bicycle mediates a social relationship of care with the user of the bike, responding to both the material disorder of the machine and the practical disorder in the life of the cyclist.

We will explore the role of people who voluntarily undertake or assist in bike repair and respond to what philosopher Hans Jonas calls the 'imperative of responsibility' to care both for people and the consequences of technological progress. Jonas recognised that the costs of technological progress are not primarily felt by the individual user or consumer but as risks to the future of humanity. The depletion of natural resources – energy and raw materials – along with environmental degradation are consequences that threaten all humanity. In response to the trajectory of technological innovation in the twentieth century, Jonas revised Kant's categorical imperative to give a new moral imperative of taking responsibility for our material lives: 'Act so that the effects of your action are compatible with the permanence of genuine human life' (Jonas 1984: 11). Jonas argues that our first responsibility is to other human beings, including those not yet born, but his 'imperative of responsibility' is also directed at technological progress. The development of technology cannot be reversed, and indeed we need it to manage the environmental effects of existing technologies, but we can take responsibility for it, understanding its consequences, accounting for our use of it.

Two cases

The first example, the 'refugee bike project', is based in a northern city in the United Kingdom where both authors have been repairers and have been able to undertake auto ethnography and participant-observation. The project repairs and maintains bikes donated for use by asylum seekers and refugees supported by a City of Sanctuary parent organisation. The second example comes from Brussels, where one author (SB) was based in 2015, researching 'community bike workshops' (CBWs). In the workshops volunteers help members to repair their bikes using components recovered from bikes broken beyond repair, discarded from local bike shops or bought in bulk. Their focus is promoting *vélonomie* ('becoming an autonomous cyclist'); the confidence and pride in doing your own bike maintenance, as well as cycling on the urban streets. A loose network of repair workshops also forms part of the urban non-profit sector, promoting grassroots actions to address severe pollution and promoting sustainable transport.

These non-commercial approaches to recycling bicycles share a number of features that we will draw attention to; donations, socio-material networks, cross-cultural engagements, and material practices including hand tool work and material cannibalism. Volunteers are motivated by a caring ethic to provide working bicycles to those who need them, through minimal use of 'new' materials and consumed objects. They participate in networks that donate

bicycles, scavenge spare parts, work in free or cheap temporary premises, link with other supporting networks and support those who lack resources and skills themselves.

The mechanics of the bicycle

In advanced industrialised societies we are less likely than people in the past, to make or maintain the things we use. Production and consumption have been separated by de-industrialisation, and manufacturing now takes place closer to raw materials or where labour is cheap. In a global process of social stratification, those who consume are seldom those who produce. The advancing technical sophistication of domestic objects, vehicles, and information technology has created many everyday material goods that are less amenable to repair and maintenance. The consumer culture driving their distribution has meant that replacement appears cheaper than repair; it brings a ‘new’ object, with the most recent technological innovations, the latest styling and a manufacturer’s guarantee against short-term failure.

The bicycle as a machine resists this tendency. It has been around for a well over a hundred years. Its form is of two equally sized wheels, a chain driving the rear wheel from pedals rotating a gear wheel through cranks, with the front wheel being steerable via handlebars.ⁱⁱ The position of the rider in relation to the wheels and pedals is fundamentally determined by the standard shape of the adult human body, which is why the mechanical form has remained so consistent.ⁱⁱⁱ The bicycle is a fundamentally straightforward machine; the operation of the mechanical components and how they relate to each other can be studied in use (although it is easiest if the bike is suspended on a stand and not actually moving). Most of the machine is visible and its workings available for scrutiny – a very few components, such as wheel, steering and bottom bracket bearings are hidden from view (Dant forthcoming). The bicycle is uncomplicated compared to the motor car which has gears hidden inside a gearbox, suspension underneath the bodywork, brakes hidden behind or even inside the wheels, engines enclosed in metal casing and nowadays a host of electrical and electronic controls interacting with all the mechanical components. The bicycle is light to work on and its components very light. Replacing a gearbox in a car requires the vehicle to be jacked up high enough for the it to be wheeled underneath and then jacked up itself (or lifted by more than one person) until it can be attached with difficult-to-get-at bolts (Dant 2010). The bicycle’s gear cassette fits easily within a hand and is slid onto the freewheel hub with one threaded fixing – albeit one that requires a special tool.

The simplicity, consistency of mechanical design, visibility of operations and accessibility of components makes the bicycle a relatively easy machine to maintain and repair. It requires little skill, few tools and minimal space or time. And yet, many users of bicycles shy away from engaging with the workings of the machine that gets them to work, to the shops or to a day in the countryside. Working on machines still has a gendered quality; men are more likely to feel they should have a go, women much less so. But plenty of men don’t want to get their hands dirty mending a puncture or cleaning the accumulated grease and dirt off a drive train

(Dant and Bowles 2003). The machinery of bicycles does have a limited life and cheap components last for a shorter time than good quality ones. The most expensive components (gears, brakes, wheels and so on) are made to be light as well as strong but mid-priced components are strong and light enough for all but the aspiring racer. The cheapest components are usually unbranded and produced to be fitted on new budget-priced bicycles. Cheap bicycles have poor-quality components and use heavy materials; the bicycles look much the same as a more expensive ones, but they are harder to ride, will wear more quickly and are more difficult to adjust and to maintain. And because the cheap unbranded componentry is often made to be sold directly to the bicycle manufacturer, it can be difficult to replace and standard components may not fit so easily.

The reluctance of many bike owners to maintain their bicycles, combined with the purchase of cheap bikes, mean that many are not used once they begin to require attention. They are left in cellars, garages and sheds and sometimes outside in a yard. The owners may buy a new bike, or they may just find other ways to get about. They may promise themselves that they will ‘do-up’ that bike in the shed and get it back to the condition it was when they bought it. But it is a daunting and unappealing task, so eventually they dispose of the bike. Some bikes will be given to friends or family members but in any local council recycling centre, you will see discarded bicycles. In 2018, the media reported how Chinese cities were impounding thousands of abandoned bikes that were clogging city streets, having been supplied by bike share schemes in excess of demand (Taylor 2018). Bicycles with visible signs of rust and with major bits missing are thrown into skips, but some – usually the better-quality bikes – will have been picked out by the recyclers at the centre as worth something. Another way of disposing of a bike is to give it to a recycling project. Some of these projects are commercial, acquiring bikes for free (e.g. through police authorities, universities, train stations) that have been abandoned, and then repairing them before selling them on. Such businesses may be ‘not-for-profit’ but use the income to pay workers and cover expenses. Another model is the charity that ships used and repaired bikes to Africa; there are a variety of different arrangements for recycling unwanted bikes.

The refugee project

This project emerged from a City of Sanctuary set up to welcome and support asylum seekers and refugees who had been temporarily rehoused in the area. Asylum seekers awaiting ‘leave to remain’ in the UK are provided with housing and given a small allowance to live on, but they are not allowed to work. Those who have been granted leave to remain and refugee status are permitted to work but often find it difficult to get employment. Asylum seekers and refugees are distributed throughout the country and throughout the city; the policy is not to establish ghettos that might attract attention from those who do not approve of them being supported and allowed to live in the UK. Having the use of a bicycle allows asylum seekers and refugees who have very little money to visit shops, attend English classes and other

activities and to visit each other. For some families bicycles are how the children get to school. Local residents who volunteer in the refugee bike project sympathise with the plight of refugees relocated to their communities and support the aims of the City of Sanctuary.^{iv}

The bicycles

The refugee project lends bicycles that have been donated and repaired to household groups of asylum seekers and refugees and at the time of writing has 105 bicycles distributed over some 35 households with a further five in preparation. Bicycles are usually shared within a household of four or five people and are difficult to keep track of as they are lent between groups and sometimes taken away from the city. The refugee project began with bicycles donated by volunteers and friends linked to the City of Sanctuary. The word circulated through voluntary and religious groups that there was a need for unused bicycles and this has maintained a flow of bicycles into the project of different types; road bikes, mountain bikes, hybrids, shopping bikes and children's bikes. Early on there were a large number of single men who needed bikes and fewer single women, many of whom were inexperienced riders. Later a project linked to the arrival of families led to a need for bicycles for teenagers and young children.

The bikes being worked on were mainly between ten and twenty years old with componentry that had been standard for the time of production. Most bikes that were donated were dirty and had flat tyres. Many of the bikes were originally quite cheap and had not been maintained well – or at least, not recently. Bikes also came with worn brakes, frayed brake cable ends, poorly adjusted gears, loose bearings and attachments for no longer working components (e.g. bike lights, computers, reflectors, racks etc.). The dirt was sometimes covering up rust and sometimes was mixed with grease and oil, especially on chains and gear cogs. Some bicycles had damaged or missing essential components such as saddles, brake levers, pedals and so on. An online spreadsheet was used to keep track of the bikes; where they were, the type of bike, colour, frame number and notes on the work undertaken on them. Photos of the bikes were kept in a shared file. The spreadsheet was also used to keep notes on repairs that needed doing and expenditure on parts.

The repairers

The team of active repairers began with just a couple of people but grew a little to a core of five with three or four others joining in or providing particular support (e.g. locating used parts) on the periphery. The material interaction (Dant 2005) between individual repairers and their own bicycles, working at home meant they had self-taught to a certain level of skill and confidence, sometimes over many years. Most had learnt techniques and procedures from family members, friends, repair books and more recently from videos and articles on the internet – much of such learning was on a trial-and-error basis. Coming together in a group repair session to work on unfamiliar bikes that would be used by other people, provided an opportunity for developing skills through sharing experiences and advice. In a convivial social atmosphere, repairers asked each other about techniques, tools and materials. Group members, would for example, discuss with others whether a brake cable that had begun to corrode and so

not move freely in its 'outer' sleeve could be cleaned and greased or whether it needed to be replaced. Tools, hand creams and lubricants were shared along with techniques and informal checking of work. One member of the group had experience of teaching bike maintenance and earning money from maintaining and repairing bikes but the others were 'amateurs'. Ages of group members varied from early twenties to late sixties and this gave breadth of experience of different eras of bike engineering. Most of the core repairers were male but one consistent repairer was a woman and a couple of other women joined in repairing from time to time. Decisions about when to repair or when to scavenge useable parts and dispose of the remainder were usually made by two or three repairers.

A Facebook site was set up early on that linked the repairers and some of the City of Sanctuary volunteers supporting asylum seekers and refugees. This network of more than thirty people not only identified a particular need for bicycles, it also organised donations. The Facebook site was used to arrange repair sessions where two or more repairers got together to undertake repairs. The communication through Facebook was supplemented with emails, instant messaging and occasional phone calls. There was no hierarchy amongst the project workers and no special roles although one person who had been a volunteer in the parent support organisation tended to act as a 'go-between' with the households of asylum seekers and refugees.

Social networks

There were three overlapping social networks: volunteers in the City of Sanctuary; bike repairers; asylum seekers and refugees. The networks overlapped as individuals from one group interacted with individuals within another but there were no occasions when the networks were formally connected. The bicycles provided the principal link between networks. City of Sanctuary volunteers offered donations of bikes, passed on requests for bikes or reported repairs that were needed. Repairers sometimes visited households to deliver or repair bikes but often the bikes moved between repairers and users via a store where users could also collect bike locks, helmets and lights. A feature of this project was that the users were from overseas and many came from cultures that did not routinely use bikes. A number of the users had to learn to ride a bicycle for the first time and few had any experience of maintaining bikes. As the refugee project progressed it accessed some local authority funds to run sessions for small groups to learn riding skills and bike maintenance.

Locations

Early repair sessions were held in a back yard where some bikes and bike parts had been collected. Repairers also worked in spaces adjacent to their homes (garages, yards, cellars). The advantage of this was that repairing bikes could be fitted around paid, domestic and other work and personal tool sets were ready to hand. The cellar of a co-operative food shop was made available for storing donated bikes waiting for repair and repaired bikes waiting to be collected by users. Two members of the co-operative helped with handing over bikes and distributing helmets, locks and lights. Later an old boat building shed, repaired by another

community group, was used for repair sessions and for storing bikes and used parts. This shed had other uses, some of which required the removal of all the bikes, parts and tools. A second space became available in a covered yard with a lockable cupboard and permanent bike stand but here space, especially for storing bikes, was limited.

Material practices

The main focus was on getting bikes rideable and roadworthy and much of the repair work undertaken in the project was routine and mundane; mending punctures, replacing brake shoes, adjusting brakes, adjusting gears, lubricating moving parts and removing redundant fittings. Tyres and tubes were often a source of problems because where a bike had been left resting on flat tyres, the tyre walls were often damaged and the inner tubes were perishing. Although inner tubes could be repaired and tyres pumped up, worn tyres and tubes that were vulnerable to puncture meant that they failed soon after. Replacing spokes, truing wheels, repacking bearings were tasks that came up occasionally but were not routine.

The repairers tended to use their own tools at home and bring them to joint sessions. Many bike tools are specific (e.g. cone spanners, removal tools for cranks, freewheels, cassettes, chain links) and using a bike stand makes working on a bike much easier. As the project progressed a bike stand and various tools, including specialist bike tools, were donated. Early in the project components such as inner tubes, spokes and brake pads were purchased as they were needed. The parent project had some funding and was able to reimburse expenditure on spare parts and on helmets, lights and locks. As the repair project developed it built up a stock of recycled components from donated bikes that were no longer useable; brakes, cranks, chainsets, handlebars, saddles and seatposts, cables, nuts, bolts, pedals and so forth. These scavenged items were stored in plastic boxes so they could be used on other bikes. The discarded frames – rusty beyond use, bent or broken – were taken to the recycling centre as were any discarded metal components.

Community bike workshops in Brussels

The collective repair of bicycles has seen a significant upsurge in western countries since the 1990s, when a new phenomenon, the ‘Community bike workshop’, emerged. CBWs are a self-help alternative to bike shops. Their origins included the ‘bikes not bombs’ movement in 1970s USA, and various community ventures in Europe that had a strong social support focus or an activist basis (Carlsson 2007). They are ‘do it yourself’ responses, a form of ‘urban commons’ where people come to repair their bikes, source second-hand and scavenged parts, and learn maintenance skills. Almost all are not-for-profits relying on volunteers to assist the visitors to learn repair skills, though a few have paid staff, and they are based in cheap or free premises. All try to contribute to sustainable transport through the transmission of bike repair skills, although they have diverse political leanings. In France, this type of skill acquisition is termed ‘vélonomie’, or the creation of a self-sufficient or autonomous bicycle citizen capable of riding

safely and keeping their own bike maintained. Workshops are generally open to all, many having a fee structure (perhaps 10-20 euros a year membership or pay-per-visit). Workshops are 'demand side' operations – increasing demand for cheap and low-carbon emitting transportation regardless of the participants' social status or identity, rather than 'supplying' new urban cycle lanes and infrastructure. They are therefore outside the state, or sometimes against the state.

Interviews were conducted in Brussels, Belgium in community bike workshops and among transport organisations for ten weeks in 2014-2015, posing questions about their mission, participation, premises, and links to mainstream organisations (Batterbury and Vandermeersch 2016). Batterbury researched and participated in workshops, as an outsider but as part of the first academic exploration of the operation and socioeconomic contributions of community bike workshops worldwide (www.bikeworkshopsresearch.wordpress.com). Brussels had 13 workshops operating in 2015 – one closed but the number had expanded to 19 by 2018. Workshops are not only a site for repair, but they also house discussion and networking around cycling and bicycle use. The city's bike enthusiasts fight against pervasive automobility, in a city where cycling forms only 4% of the daily traffic.

Brussel's economic success coexists with social polarisation (Oosterlynck 2012). Some neighbourhoods and households suffer a considerable level of disadvantage, and there is racial and linguistic diversity. The city is also a refuge for many asylum seekers and immigrants without legal status, who frequent bike workshops. Aside from skilled and often temporary expatriate workers, the city has substantial populations of Italians, Spanish, Turkish, Moroccans and Congolese, some being descendants of guest workers in manufacturing who came to Belgium in earlier decades. Bikes are an affordable form of transport for many individuals across society.

Bikes and parts

In Brussels, bike workshops are relatively popular. The 'stock' bike circulating in the city is a functional commuter bike, quite heavy and usually with gears to help with hilly terrain. Some bikes were sourced from the local councils or donated by people in the vicinity, some from Brussel's transient international population. A particular feature was that several bike shops were on good terms with the workshops and offered them crashed bikes, part-worn tyres, and other components that they did not need. But there were occasionally shortages of spare parts in workshops. New items like brake cables were purchased from the (usually limited) workshop funds. Used bikes were sometimes broken down and the parts classified and sorted into receptacles. This is an essential feature of a workshop where members of the public are present during repair sessions, and there is a high turnover of parts and a potential for confusion. Classification of parts certainly aids repair work although some workshops were neater than others. Another reason to strip down and classify parts is because the workshops often have uncertain tenure in their premises and could be forced to move. Tools stayed in the workshop and were sourced secondhand, occasionally new, and sometimes from the numerous small

community grants available in the city, which has governance devolved down to 19 *arrondissements*.

The repairers

Workshops tend to be staffed by people who are – largely – cycling enthusiasts and community development practitioners – similar to the ‘refugee project’ in the UK. They, and the workshop customers and their bikes, are all ‘participants’ in the unique social field/task group of the workshop, which combines camaraderie with practical actions and pedagogy. As one organiser says of their workshop, “it’s a tiny village in the middle of the city” (*c’est un tout petit village au milieu d’une ville*). Because most workshop volunteers make their living in paid work or are students, hours of operation can be limited, often to evenings and weekends.

Even in the world of volunteer-run community enterprises, a desire to tinker around with bikes must be accompanied by basic management skills to connect the workshop to utilities, manage keys, pay bills, order a few new spare parts at bulk prices, check that rosters have volunteers (without which the workshop cannot open) and complete annual accounts if they are registered as nonprofit organisations. This falls to the major workshop organisers (*les responsables d’ateliers*) and requires innovation on the job, since few have prior administrative experience (just one had this training). There were also two semi-professionalised workshops with paid staff, one with a subsidy from a university and both had ‘stand fees’ and higher costs for parts (Vandermeersch 2015). Volunteers, largely but not exclusively male, are key for directing citizen and community engagement and the division of essential tasks like stripping down bikes to create a stock of parts. Four workshops had written rules to which volunteers must adhere when on the premises, concerning the handling of tools and dealing with clients. Formalised internal policies are most common in North American bike workshops.

Among the 44 mechanics known to be volunteering in the 13 workshops in mid-2015, only one was a paid bike shop mechanic beyond his workshop participation and five in total had full training in bike repair. Some learned their mechanical skills in Points Vélos (repair stations in the major train stations, run by the Belgian NGO, CyCLO). Some volunteers work across more than one workshop. Even when they are worn thin, interviewees expressed a passion for being a part of the workshop project; “I love working here: I’m in love with this workshop”, one said (*j’adore faire ça ici, cet atelier, je suis amoureux de cet atelier*).

Those mechanics who regard the bike as an education tool operate rather like teachers. They are patient with the customers, showing them how to do mechanical tasks, but they also expect punctuality and confidence among the other volunteers. The idea is to teach, not to take over. This skill is hard-won and one training exercise we heard about tied the volunteer mechanics’ hands behind their backs, to force them to explain maintenance to customers, rather than taking it over. In the community sector the skills and knowledge of those moved to participate can be variable. Professionalism can be uneven among volunteers – sticking with a tricky repair (like assisting with rebuilding a wheel) or seeing a repair task through to completion can be demanding. Some refuse to fix e-bikes, making this workshop policy. Brussels has a long

tradition of countercultural protest and alternative politics – urban radicals congregate in bike workshops – particularly those opposing car culture. Because of this image, and despite the diversity of reasons why workshop users visit them, members of the public without much knowledge of transport politics may consider a workshop to be an unwelcoming space. Social media can reinforce, or dispel, this image.

Very few women in Belgium are trained bike mechanics and Brussels is no exception. Women are present in bike shops and Belgium's many competitive cycle teams, but workshops are not equally staffed or patronised. There were three women mechanics in Brussels among 44 surveyed by Vandermeersch (2015). These three felt welcomed in their workshops, developing mechanical skills among a male-dominated fraternity. Among the workshop clients, women are a minority. This simply reflects the reality on the streets, in professional cycling, and among daily cyclists, at least in Brussels. Some 32% of workshop visitors were women in a 2013 survey in French-speaking Belgium outside Brussels, where there around 25 workshops, and this figure was 40% across French workshops in 2017 (Meixner 2017: 10).

Social networks

There was talk in Brussels of ‘scaling up’ and ‘federating’ workshop activity. A broader coalition of organisations aiming to get more people mechanically competent and onto bikes would seem sensible. Workshop organisers are already active in broader pro-cycling initiatives. These include the monthly Critical Mass (Masse Critique or Véloration) rides, a large Véloration Universelle Bruxelles 2015 event that included a critical mass ride of 1,000 people and a conference, the Clean Air BXL anti-air pollution campaign (<http://www.cleanairbxl.be>) and Cyclehack BXL which is part of a global movement to enable grassroots design solutions for problems facing urban cyclists (<http://CyclehackBXL.be>).

Bike workshops are seen as practical spaces for addressing problems. They partner other community-minded individuals and organisations. Nurturing key local contacts strengthens the capacity of each workshop to temper disagreements stemming from sociocultural and age differences among participants and users. In terms of wider links, the Cyclooperativa workshop, in an Arab neighbourhood, best illustrates the importance of developing and maintaining good relations with the community and its own social organisations (<http://cyclooperativa.org>). While the mechanics enjoy their participation in the workshop, it has a particular aim to act “for and with” (*pour et avec*) local people.^v

Locations

As community-based nonprofits, true community workshops have very little money for premises. A few workshops globally, such as Working Bikes in Chicago and the Bicycle Kitchen/Bicococina in Los Angeles, own their building, but this is rare. Across Europe, workshops find space in squatted or borrowed premises, in buildings awaiting planning permits for redevelopment, or in spaces offered or subsidised by local or regional government. If there are genuine commercial rents to meet, this means earning enough revenue to cover these costs,

and the only place to do this is through refurbishing and selling bikes, or charging for services. This can conflict with the ‘repair’ mission of serving the local population in a particular neighbourhood if that population is very low income.

Brussels workshops have major difficulties in securing premises on anything other than precarious terms. Several, like Cycloperativa in Annessens, have an attachment to places (the quartier) and people. However they were forced to move in 2015 and again in 2017. The stock of tools, bikes, and work benches and stands were relocated by volunteers with cargo bikes, first to a derelict shop and later to a unit with a local government subsidy. Such relocations are seen as part of the life of a workshop that serves a community while keeping costs very low. One mechanic said that “to begin, and to maintain continuity, you must have a workshop, a place to work, in the neighbourhood. Without that it just isn't possible” (*Pour commencer, la continuité, faut qu'on continue à avoir un local, un endroit pour le faire, dans le quartier. Euh, sans ça, c'est juste pas possible*) (Vandermeersch 2015: 40). One of the most spacious workshops in Brussels is 123Velo, which is situated on the ground floor of a squatted former government building with an intentional community above it that supports and uses the workshop. It began as the effort of one individual in 2008 but has grown significantly over the last ten years. Its customers come from many countries, with different racial backgrounds, and speak several languages.

A respondent whose workshop had been forced to move twice listed the negative repercussions of working in temporary spaces: the chaos of moving, the loss of some local supporters and visitors from the immediate locality and even some volunteers. But workshops operate very differently from bike shops in this regard; they can get by with out-of-the way locations, and unattractive premises, as long as there is sufficient room to stage repair sessions and store a stock of bikes and parts securely. Interviewees made it clear that to contribute to community development and social cohesion, “you must stay there, in the neighbourhood, or you lose support” (*Il faut rester à la, à la mesure du quartier, aussi non on le perd*). None of the workshops sought better premises just to expand; the quest was for stability, not profile or position. Above all, workshops want to remain accessible to the general public and in a building that makes this possible.

Each workshop has its own feel, though there are common spatial elements across them. Aside from stacks of junk bikes and some repaired for sale, there are working spaces and collections of stripped down parts in tins, drawers and diverse receptacles. Tools are accessible and usually available to visitors rather than jealously managed. The more established workshops have sofas, a fridge, and a place to make hot drinks. Electricity is necessary for evening activities. Running water and some heating is desirable, but a full set of utilities is not required for the limited opening hours that some workshops maintain. Several are wired for sound and internet.

Discussion

The two types of project discussed in this chapter have key differences. In the refugee project the bikes were repaired by volunteers and were effectively owned by the project. In the community bike workshops in contrast, the bikes were owned by individuals who undertook their repair with the help of volunteers. Social interaction differed between repairers and users. Nonetheless there were similarities between the projects.

Premises – Appropriate buildings and their accessibility haunt the voluntary sector and bike workshop activity in particular. Repair is materially located somewhere – while it can happen in private locations this is isolating, and in Brussels, almost impossible in a city of small living spaces and apartments. The workshops are a social space – sometimes with luxuries like armchairs and stereos. In both the refugee project and the community bike workshops everything had to be moved from place to place when one premises had to be exchanged for another. In both, access to water, light, heat and electricity were limited and sometimes absent.

Social networks – Communication and socialisation during the shared practice of repair lead to new social bonds, friendship and mutual respect, as people get to know each other. In the contexts we have described there were few skilled and trained individuals, so technique is learned, and certainly improved, not through formal training or instruction but on the job, in what Paul Richards (2001) calls the ‘task group’. The task group is the loose network of volunteers bringing their accumulated repair skills to the workshop and then sharing and developing them as a group, around repair. Once established, the network of repairers developed into a new social group with its own shared interests and means of communication that then connected with other groups and activities (bicycle users, other volunteer organisations, political interests, leisure interests and so on) through the medium of the bicycle. Connections with outside groups are sustained by the efforts of individuals and there are stratifications within the repair group if decision making is taken by an ‘inner’ group rather than the occasional volunteers. And, of course, there can be occasional unpleasant behaviour, such as sexism, which contradicts the shared ethos of helping others through bicycles.

Value – A common feature of both the refugee project and the community bike workshops was the absence of commercial valuation of the work and the artefacts. Neither the work nor the material of the bicycle is paid for; exchange of things and human effort is ‘free’.^{vi} This significantly puts the social activity and the material exchange of this type of repair activity outside the circuits of the capitalist economy. The work and the material performance of the repaired bicycle is valued by individuals in terms of pleasure in riding and in being able to use the bicycle for transport. This valuation is expressed back into the repair network in terms of thanks and appreciation. Unlike the community bike workshops, within the refugee project, this was difficult because the repairers had little contact with the users. There was however in both projects the satisfaction of making a bicycle rideable and imagining the uses to which it could be put. Seeing the repaired bicycles being used around the city and hearing stories of use made the repair work worthwhile.

Skills – The repairers in both projects enjoyed the deployment of their repair skills; demonstrating know-how and applying it to achieve ‘rideability’ was a satisfaction in itself. The material interaction – the meaningful interaction between the repairer and the material stuff of the bicycle, tools and components – provides this satisfaction and pleasure to varying degrees. But, the social interaction in both projects enhanced the experience of volunteers as well as their skills and capacity. As Paul Richards (2010) argues, learning is by practice and the opportunity of repairers to work together sharing skills and techniques, demonstrating, discussing and comparing enhanced learning, and pleasure from the experience. In the refugee project the amateurs enjoyed coming together in repair sessions and the community bike workshops brought novices and experienced volunteers together. Coming across difficult or unusual repairs provided a challenge and a particular opportunity for sharing skills. For example, in the refugee project a bike with a missing seatpost had been damaged by a previous owner trying to insert one of the wrong size. A collaborative effort by three repairers using different techniques and ‘bricolage’ with adapted tools succeeded in reshaping the downtube enough to enable a correct sized seatpost and collar to be fitted.

Conclusions

Our autoethnography and participant-observation of bicycle repair reveals some new, and some well-worn insights about social engagement with technology. While technology involves artefacts (tools, machines, and processes), following Paul Richards, it also involves technique – “knowing how to do something” (Richards 2010: 1). This is knowledge of a process or thing, applied in practice rather than as abstract or systematic knowledge. None of the repairers we encountered had been formally taught how to undertake repair work on bicycles, except for a tiny number of trained mechanics volunteering their time in Brussels. Rather, individuals were self-taught through pragmatic interaction and experimentation with bicycles that needed attention (Dant 2008). In Belgium, the workshop volunteers promote *vélonomie*, while also socialising among, and on, a bicycle as an artefact – participating in festivals, operating drop-in sessions, mobile fixing workshops, and fundraisers. One of their weddings took place on bikes. The aim is to enlarge the social field, to grow the number of bike riders through gaining skills and enthusiasm, thereby creating a cleaner and less polluted city. Participation in Critical Mass, selling posters and t-shirts, and occasional media work all support this assertion. The intention of repair differs in the refugee project, where there is (as yet) little training of ‘users’ (or riders) in bike repair. But for the participants, there is the same sharing and learning of skills – a similar relation between user and artefact.

What was characteristic of the repair work undertaken in both the refugee project and the community bike workshops was the ‘imperative of responsibility’. Accounting for our material lives and taking responsibility for the things we possess and use, is part of Jonas’s revision of Kant’s categorical imperative to give a new moral injunction that underlies being human. All the repairers we talked with or worked with were motivated not by financial reward or social

status but by a feeling of responsibility towards those who were less fortunate than themselves, perhaps through being displaced from their home country, perhaps through poverty or social exclusion. The work of repair enabled the repairers to help sustain those other lives through a technology, the bicycle, that itself as a mechanised means of transport is also ‘compatible with the permanence of genuine human life’.

References

- Batterbury S.P.J. and I. Vandermeersch 2016. ‘Bicycle justice: community bicycle workshops and “invisible cyclists” in Brussels’. In *Bicycle justice and urban transformation: Biking for all?* A. Golub, M.L. Hoffmann, A.E. Lugo and G.F. Sandoval (Eds.) London: Routledge, 189-202.
- Carlsson, Chris. 2007. “‘Outlaw’ bicycling’. *Affinities: A Journal of Radical Theory, Culture, and Action* 1 (1): 21-32.
- Dant, T and Bowles, D. 2003. ‘Dealing with Dirt: Servicing and Repairing Cars’ *Sociological Research Online* 8 (2) <http://www.socresonline.org.uk/8/2/dant.html>.
- Dant, Tim 2005. *Materiality and Society*. Maidenhead: Open University Press.
- Dant, Tim 2008. ‘The “pragmatics” of material interaction’. *Journal of Consumer Culture* 8 (1): 11-33.
- Dant, Tim. 2010. ‘The Work of Repair: Gesture, emotion and sensual knowledge’, *Sociological Research Online* 15 (3) 7 <http://www.socresonline.org.uk/15/3/7.html>
- Dant, Tim. (forthcoming) ‘Inside the bicycle: repair knowledge for all’. In *Repair Work Ethnographies. Revisiting Breakdown, Relocation Materiality*, I. Strebel, A. Bovet; and P. Sormani (Eds.) Palgrave Macmillan.
- Gilroy, Paul. 2001. ‘Driving while black’. In *Car Cultures*. D. Miller (ed.) Oxford: Berg.
- Graham, Stephen and Nigel Thrift. 2007. ‘Out of order: understanding repair and maintenance’. *Theory, Culture and Society* 24 (3): 1-25.
- Gregson, Nicky; Metcalfe, Alan, & Crewe, Louise. 2009. ‘Practices of object maintenance and repair: How consumers attend to consumer objects within the home’. *Journal of Consumer Culture* 9 (2): 248-272.
- Heidegger, Martin. 1962. *Being and Time*. Oxford: Blackwell.
- Horton, D; Rosen, P; Cox, P. (eds.) 2007. *Cycling and Society*. Aldershot: Ashgate.
- Horton, D. P. Rosen and P. Cox. 2007. ‘Introduction’. In *Cycling and Society*. Horton, D; Rosen, P; P. Cox (eds.) Aldershot: Ashgate.

Houston, Lara. 2013. *Inventive infrastructures : an exploration of mobile phone 'repair' cultures in Kampala, Uganda*. Doctoral Dissertation, Lancaster University.

Jonas, Hans. 1984. *The Imperative of Responsibility: In Search of an Ethics for the Technological Age*. Chicago: University of Chicago Press.

Meixner, Evan. 2017. *Etude d'évaluation sur les services vélos – enquête sur les ateliers d'autoréparation de vélos*. Angers: ADEME. https://www.heureux-cyclage.org/IMG/pdf/cahier_ateliers_autoreparation-services_velos_ademe-2017.pdf

Oosterlynck, Stijn. 2012. 'From National Capital to Dismal Political World City: the politics of scalar disarticulation in Brussels'. In *International handbook of globalization and world cities*. Derudder B., M. Hoyler, P.J. Taylor and F. Witlox (eds.) London: Edward Elgar, 487-496.

Parkin, J., T. Ryley, and T. Jones. 2007. 'Barriers to cycling: An exploration of quantitative analyses'. In *Cycling and Society*. D. Horton, P. Rosen and P. Cox (eds.) Aldershot: Ashgate.

Richards, Paul. 2010. 'A Green Revolution from below? Science and technology for global food security and poverty alleviation'. Retirement address, Wageningen University. <http://edepot.wur.nl/165231>

Skinner, D. and P. Rosen. 2007. 'Hell is other Cyclists: Rethinking Transport and Identity'. In *Cycling and Society*. D. Horton, P. Rosen and P. Cox (eds.) Aldershot: Ashgate.

Taylor, Alan. 2018 'The bike-share oversupply in China: Huge piles of abandoned and broken bicycles'. *The Atlantic* March 22. <https://www.theatlantic.com/photo/2018/03/bike-share-oversupply-in-china-huge-piles-of-abandoned-and-broken-bicycles/556268/>

Vandermeersch, Inès. 2015. *Évaluation de l'impact social d'une initiative citoyenne: le cas des ateliers collectifs de vélos à Bruxelles*. M.A. Thesis. Haute École de Namur-Liège-Luxembourg/Haute École Louvain en Hainaut.

ⁱ *Acknowledgements: Simon would like to thank the Brussels Centre for Urban Studies at Vrije Universiteit Brussel (VUB) for a visiting fellowship in 2015.*

ⁱⁱ The safety bicycle, that originated in a number of designs around the 1880s, was able to compete with high wheel bikes (that were fast, but not so safe) because of John Dunlop's invention of the pneumatic tyre. We can easily think of ways in which the safety bicycle has developed over that one hundred and forty plus years; gears have taken on different forms (in the hub, in the bottom bracket, with a cassette and derailleur), handlebars have taken a variety of shapes and although the diamond frame has remained dominant, other shapes exist. Perhaps most importantly the materials of manufacture have changed with steel alloys, aluminium and carbon fibre bringing down the overall weight of many bicycles quite significantly. But as a machine, the bicycle has remained remarkably consistent in being a two wheeled vehicle, propelled by human energy through a drivetrain linked through a chain.

iii There are of course variations: small-wheeled bicycles, recumbent bicycles and tricycles, cargo bikes and most recently the e-bike using battery power to supplement human energy. Nonetheless, the vast majority of bicycles ridden take the same safety-bicycle form and are very similar in the way they work.

iv There are similar schemes operating in London (<https://thebikeproject.co.uk/pages/about-us>) Norwich (<https://www.bbc.co.uk/news/uk-england-norfolk-43058874>) and Scotland (<https://www.facebook.com/BikesforRefugeesScotland/>) that have made what they do public.

v There are a number of directions in which these partnerships could expand; for example, linking with the 27 Brussels Repair Cafés (<http://www.repairtogether.be>, workshops to fix household items).

vi While spare parts were ‘scavanged’ wherever possible from bikes deemed unrepairable and available for cannibalisation, some parts had to be repurchased from ordinary outlets. The repairers in the refugee project used contacts to get discounts from local shops and consumer skills in purchasing parts on-line for the best price. The community bike workshops collaborated in acquiring and sharing spare parts. In the refugee project, a small number of donated bicycles were sold on the second-hand market when it was agreed by the team (with the consent of the previous owner) that the bike was not suitable for use by refugees or asylum seekers. The money made from these transactions was recycled into the purchase of spare parts (e.g. brake shoes, cables, inner tubes). The repairers were keenly aware that selling bicycles was a deviation from the core aims and values of their group.



Minerva Access is the Institutional Repository of The University of Melbourne

Author/s:

Batterbury, S; Dant, T

Title:

The Imperative of Repair: Fixing Bikes – for Free

Date:

2019

Citation:

Batterbury, S. & Dant, T. (2019). The Imperative of Repair: Fixing Bikes – for Free. Martínez, F (Ed.). Laviolette, P (Ed.). Repair, Brokenness, Breakthrough: Ethnographic Responses, (1), pp.249-266. Berghahn Books.

Persistent Link:

<http://hdl.handle.net/11343/227593>

File Description:

Submitted version