

Accepted for publication by *West 86th: A Journal of Decorative Arts, Design History, and Material Culture* on 10/01/2016. <http://www.journals.uchicago.edu/doi/10.1086/688203>

Bicycle Histories, they have a past, but do they have a future?

Bicycle Design: An Illustrated History

Tony Hadland and Hans-Erhard Lessing,

Cambridge MA: The MIT Press, 2014.

584 pp.; 306 ills.

Hbk. \$36.95

ISBN 9780262026758

The History of Cycling in Fifty Bikes: From the Velocipede to the Pinarello

Tom Ambrose

Emmaus Penn.: Rodale Books, 2013

224 pp.

Hbk. \$25.00

ISBN 9781623361310

Fifty Bicycles That Changed The World

Alex Newson/ Design Museum

London: Conran Octopus, 2013

112 pp.

Hbk. \$20.00

ISBN 9781840916300

Cycle Revolution

Design Museum, London

November 18, 2015 - June 30, 2016

This extended review is based on three books and an exhibition that collectively tell us something about the current state of research into bicycles. All are concerned with cycling in various ways; but they are linked by being primarily “object orientated,” and aim to address the larger culture that is more-or-less introduced by the bicycles themselves. As such, they belong in a long trajectory of machine and technology-led histories that, in cycling, date back to 1869. Bicycles are possibly the earliest modern consumer durable to have such histories written. Their popularity, alongside their cultural and economic significance, kept the output of publications dealing with them high from that year on. Bicycles, therefore, have an extraordinary baggage of written histories that tend to inform recent writing.

Before we begin looking at the books, it may be helpful to briefly outline the nature of their ancestry. Invariably, early writing was by cyclists themselves and had two clear agendas. The first was to legitimize the activity, while the second was to prove the superiority of whatever the state-of-the-art machine was, over whatever machines preceded it.

Soon, these two agendas were joined by a third; the desire to attribute priority in the invention of technologies and machine types. In a period of high nationalism, such attributions often attempted to lodge the inventor in a specific country and/or push the 'invention' earlier than previous claimants, particularly in the UK and France, the main players in European manufacture in the mid to late 19th century. Commercial interests sometimes came into play, to give certain makers kudos (e.g. Pierre Michaux), or to overturn patents (e.g. Michelin over Dunlop). However, there was no shortage of very tenuous claims based on personal and patriotic beliefs. These include ones for the Comte de Sivrac (since proven fabricated), Kirkpatrick Macmillan (no convincing evidence) and even Leonardo da Vinci (since proven fraudulent). As we will see, all are still 'live' in the current literature despite the evidence against them. One particularly interesting 'priority claim' is for the French maker Eugène Meyer. He was claimed to have invented a chain driven safety bicycle in 1870 on the evidence of an actual machine 'found' in 1908. This is likely to be a fake, but his real contribution, the invention of the wire spoke tension wheel and high bicycle was, until very recently, written out of history due to the intervention of the Franco-Prussian War and, it seems, a mistaken spelling.

The legacy of 19th and early 20th century histories remains a powerful force. Very few later writers on bicycles were trained in academic history and therefore tended to accept what was already written without question. As the number of cycle histories increased, their content became validated by the frequency with which it was repeated in print, while writers were not averse to embellishing material with little additions of their own, which then would be repeated by the next author. Only in the last thirty years has there been any consistent attempt to revisit the evidence and question the validity of much of what was accepted as "fact" during the first century. Notable in this are many of the papers presented to the International Cycling History Conference. This has been held annually since 1990, with all papers published. Unfortunately, the Conference is one of the more *recherché* events in the world of cycling culture and academe. The other significant publication dealing with such matters is *The Boneshaker*, the journal of the Veteran-Cycle Club (founded 1955), which is only distributed to its members. Not surprisingly, then, the depth of research necessary to really engage with the most current understanding of the facts of cycling history tends to be beyond that of many writers. Moreover, with the increasing popularity of cycling in Western nations, particularly the UK, USA, and Australia, there is an expanding market for engaging, English language, histories of cycling. These largely set out to do what their distant predecessors attempted to do in the late 1860s, for which the 'old' history is ideal and readily available to be repeated yet again.

Reflecting the comments above, the four sources discussed here hail from the UK. Of the books, one stands out, Hadland and Lessing's, *Bicycle Design*. Both the authors are well known and respected in cycling history. Hans-Erhard Lessing¹ is notable for his myth-busting activities, in particular the demolition of any credibility of Leonardo (or his apprentices) having any place in bicycle design. Hadland's conscientious, technology-led research has

resulted in some of the most reliable histories published in recent years.ⁱⁱ They prove to be a good working partnership in the production of this book.

To a great extent, *Bicycle Design* is a straightforward, blow-by-blow, technology-led history of machines and their components. In this it is part of a long tradition of such histories; perhaps if one was to try to seek its closest precedent one would find it in Archibald Sharp's *Bicycles and Tricycles* published in 1896. The authors make no apologies for this and, like Sharp's, their approach is pretty flawless if you want accurate information on what types of cycle were available when, and who and what was responsible for their development. At 492 pages, with appendices that take it to 584, it is amongst, if not the most comprehensive survey of its type, taking the reader from the years preceding Karl Von Drais' invention of the in-line two-wheeler in 1817, to the present.

Importantly, the book also addresses some, but by no means all, of the myths, hoaxes and 'not provens' that tend to appear in other histories as facts. However, the relegation of many of these to the ten-page appendix A, while reflecting the authors' own interests in things that *actually* happened, perhaps underplays them. Moreover, some that get briefly mentioned in the text, such as the 'Meyer-Guilmet' chain-driven machine mentioned earlier (now at the Musée des arts et métiers in Paris) (p. 76), do not appear thereafter in the appendix. Appendices are all too easily overlooked by general readers and, by only reading the main text, it would be easy enough to just assume that the fanciful tales covered in Appendix A had merely been missed by the authors. On the other hand, someone referring only to the appendix as a comprehensive outline would miss those embedded in the text.

Bicycle Design's positive reception in the specialist world of cycling history is evidence of the level of care that the authors have put into its content. Certainly, while a reader might question the levels of emphasis placed on different elements, it would be hard to find serious error here. Remarkably for such a history the authors' have clearly set out not to judge any of the technologies they describe. Rarely is the word 'improvement' used, even, let alone any consideration of socio-economic context; though some of Lessing's predilections are allowed to enter the early part of the book, notably the suggestion that Karl von Drais (1785-1851) was responding to the crisis in horse fodder in the wake of the eruption on Mount Tambora in 1816 when he first invented his Laufmaschine, or "running machine" (p10). Nevertheless, this is a fairly arcane criticism. The matter-of-factness of the content remains possibly its greatest strength; one can hardly outdo the authors' own closing comment on p.525 where they state "this book is basically about engineering, and we're with Louis Sullivan."

To enhance understanding of the wider context, one might be best looking at David Herlihy's *Bicycle: The History*, which provides a more sociological study of the same overall history.ⁱⁱⁱ These two books together form the state-of-the-art of general cycling histories. Would that all journalists, exhibition designers, television documentary makers, and writers on cycling more generally refer to them (only), the world of cycling history would be a less fictitious place.

Both published in 2013, *The History of Cycling in Fifty Bikes* and *Fifty Bicycles That Changed The World* share a similar approach their subject. To say that either is based on object analysis would be overstating the method they use, but both are object-driven. They belong in the same genre as Neil MacGregor's *A History of the World in 100 Objects* which began as a BBC radio program in 2010.^{iv} Why fifty should be the magic number in cycling history is a moot point. In relative terms it shows how important bicycles are if everything else can be covered in another fifty objects, or, perhaps, the relative unimportance of the rest of the world to cyclists and Neil MacGregor. Joking aside, one suspects it has a lot more to do with convenience for publishing and marketing than cycling history.

Both titles are ambitious, in subtly different ways. As I have begun with a history lodged entirely in cycling, I will start with *The History of Cycling in Fifty Bikes*. With a background in advertising and television documentaries Ambrose has all the credentials of the credulous. What equips him to write this history is difficult to see from his previous publications, which seem to focus on despotism, royal bedroom antics, and gay icons. The book lives up to all expectations. Starting with Leonardo, there is mention that Lessing has questioned the authenticity of this story, but it was evidently too good to be eliminated and so appears as a 'proto bicycle'. We then go to No.2, the Draisienne, but here its story is begun by the unexpurgated tale of the Comte de Sivrac and his Celefiere. No.4 is the Macmillan, again supported by a story for which there is not one shred of contemporary evidence save for the fact that someone (possibly Macmillan) was fined five shillings for running down a child in Glasgow in 1842 on a 'very ingeniously constructed' velocipede. It is most likely that the velocipede in question was a tricycle. However, not to be put off by this detail, No.12 is the 'Coventry Lever' which definitely was (and is) a trike. So much for 50 bikes, then. In fact, with 'Pneumatic Tyres' (No.13), 'Lucas Bicycle Lamps' (No.17) and 'Sturmey-Archer' at No.21, the book is more 'forty five bikes' than it is fifty; forty four, if you write off the Leonardo at No.1.

I could go on, but this is enough to largely discredit the content. What is more depressing is that Ambrose seems to have done a bit of reading, yet has still found it impossible to ignore the myths and seems almost to have wilfully included them because they have rooted themselves so deeply in cycling history. The problem is, of course, that they are so much more romantic than the actual facts and make a good story, of the sort that advertisers and television documentary producers like to use to draw in their audience.

Where Hadland and Lessing fear to tread, Ambrose goes in like a hippo to a mud pool. Each 'bike' is the entry-point into a far greater contextual history. The text is riddled with retrospective value judgements. Ambrose is a writer mired deeply in modernist tendencies in which it seems that, until recently, machines were designed specifically to make them difficult to use. Thus it is that on p.20 "...at best the hobby horse [an English-built machine of 1819] remained a primitive and very uncomfortable means of transport." Although 1819 was at the high-water mark of finely engineered turnpike roads, they were "...potholed [and] combined to make for a rough and unpleasant ride." If this was not enough, the "...constant movement on the part of the rider...could cause excruciating pain as well as minor injuries."

Even then, "...the need to constantly use the feet to maintain balance and propulsion [surely true of all bicycles?] only added to the rider's pain." With all these advantages, no wonder that they were so fashionable.

If the history is questionable, the method is equally so. There are issues with nomenclature and anachronism. For example No.5, 'The Velocipede' seems to be differently and more positively treated than No.6 'The Boneshaker', yet they are one and the same (forty three bikes?); the retrospective, negative nickname was not how people described front-driven velocipede bicycles until after their currency. Moreover, there is a problem when generic type-forms, such as 'The Velocipede', are butted up against specific machines, such as No.35, the 'Peugeot PX10'. The Velocipede effectively covers all cycling activity in the 1860s; the Peugeot PX10 is a singular product only there to provide Ambrose a chance to recount the death of Tommy Simpson, overloaded with doping, on Mont Ventoux in the 1967 Tour de France while riding a Peugeot PX10. It is impossible to adequately control the content when the case studies are so variable.

All this is a shame as, under all the fiction and bowdlerised history, there is a lot of interesting and quite thoughtful material, particularly relating to later 20th and 21st century cycling. In this Ambrose reflects many of his predecessors. A bad, romanticised, socio-technological history leads to a fairly solid account of recent and current practice.

Moving on to Newson's *Fifty Bicycles That Changed The World*, the title alone is enough to discredit the content of this book. Unless one is into chaos theory, it is hard to think of any bicycle that changed the world; they just did not have the chance, being so quickly overtaken by motorised road vehicles that could more reasonably make this claim. Fifty bicycles that had some effect on manufacturing, social, and/or transport history would be more like it. Even then there would be the same problem Ambrose faces regarding the general and the specific. However, this is a book published in association with the Design Museum in London, and if there is one thing that such places like it is the specific; the 'design classic'. Looking at the rear of the dust jacket one finds that indeed there are other series of fifty world-changing objects, namely bags, cars, chairs, dresses, hats, shoes, and typefaces. I'd suggest adding nuclear bombs, but then there are only two of them that changed the world (so far). Still, this is easier for a design museum to deal with at object level than population shifts or climate changes.

Newson's book, though identical in method to Ambrose's, is far less ambitious in its descriptions. Each entry is about 300 words and faces a picture of the machine it refers to. Add a similar introduction and the main content rises to 102 pages, less than half the number provided by Ambrose. If there is one thing for which Newson deserves credit, it is that he misses out almost all the myths, suggesting that he has swallowed some serious recent scholarship. This makes the reference to Leonardo in 'Safety Bicycle – c1880 – Henry J Lawson' (p.14) look particularly bizarre: "The earliest example of a chain-driven bicycle is a drawing that appears in Leonardo Da Vinci's *Codex Atlanticus* of c1493. A design by British

inventor Henry J Lawson of 1879 was, in all probability, the first chain driven bicycle of real significance.”

In fact, the preposterous title would remain fairly outrageous even if it had been ‘cycling culture’ instead of ‘the world’. For instance ‘Paris Galibier – c1947- Harry Rensch’ (pp.36-37) is not a machine that reads high on the changing-anythingometer, only that Rensch’s strange looking frame, that came from nowhere to lead nowhere, is a must for collectors of British lightweight machines. The same could be said for a host of others, for instance the Dursley Pedersen (pp.18-19), notable only for its extraordinary frame geometry that allowed it to be soft-soldered, both things that were adopted for no other bicycle. Then there are many bicycles in the mix that are just too new to have changed anything yet, and a crop of others that have minutely enhanced sporting performance; had they not been made, a second or two might be missing from a few records. Hardly world-changing. Newson’s book is little more than a catalogue of desirable bicycles for enthusiasts to drool over, enhanced with a smattering of generic type forms that are major mileposts in cycle development and/or use.

From Newson’s book, we move to another Design Museum production, the current exhibition *Cycle Revolution*. It is very different from the ‘fifty bicycles’ approach to cycling history and a lot more effective. Entering the museum, one follows four tyre tracks up the stairs, which enclose a stair-well high sculpture made from bicycle frames. Taking their cue from Sherlock Holmes (“The Adventure of the Priory School,” from *The Return of Sherlock Holmes*, 1904), visitors might note that the tyre tracks are appropriate for respectively a racer, an ATB or “mountain bike”, a roadster, and a delivery machine. They each lead to a themed section around each type of machine. The exhibition avoids the problem of cycling history by focusing on the present; there are no myths here, only one machine dates from before the mid-20th century. It is a refreshing change from what one might expect from Newson’s book.

The exhibition is, at best, UK wide, but actually it is presented largely from the viewpoint of those in London. It uses the four types of bicycle to propose that there are four ‘tribes’ of cyclists: to quote the captions ‘the High Performers who reach Olympic speeds, the Thrill Seekers who take on all terrains, the Urban Riders who pedal our cities mile by mile, and the Cargo Bikers who work on two wheels’. This model is developed round a display of objects that seem deliberately chosen with an audience of MAMILs (middle aged men in lycra) in mind.

One starts with those of the High Performers, then progresses to the Thrill Seekers, There are a lot of bicycles, all looking rather similar on one side, and a lot of ‘yellow jerseys’ and other such sweat stained memorabilia on the other. Rounding a corner one is faced by a solitary Rover safety bicycle of the late 1880s on one side (it all started from here) and a bicycle frame building workshop on the other. This latter displays highly crafted work by individuals who might make some of the objects in the preceding gallery. Finally, round another corner, one gets to the more prosaic (boring) Urban Riders. This is dominated by a study of a single, woman cyclist, a nod to gender awareness. Yet, surely one urban rider cannot speak for all of them? It seems she can because, reflecting the competitive nature of the first two sections, she ‘is the winner of a global competition by the Design Museum to find its ultimate urban

rider'. How amazing that the winner of this should live down the road; so, that's alright then. Finally there are the Cargo Bikers. If there is no global competition, their makers are still 'pushing the boundaries of design' suggesting a suitably macho, 'burning the midnight oil' sort of process. At the end of the exhibition is a room given over to 'Cycling – The Future' which is as close as one gets to actual engagement with transport policy. Like Hadland and Lessing's book, this forms an appendix of some importance, but has the same problematic relationship with the main content. One wonders how many visitors bother to even look at it?

I would really like to take issue with *Cycle Revolution*, but I cannot. This is because it does give a fairly accurate overview of the male dominated, fragmented and fractured nature of cycling culture in the UK and US, where many of its proponents seem to see themselves in some sort of tribal warfare against other cyclists, motorists, pedestrians and indeed any road user who gets in their way. This reflects the fact that cycling in general in the advanced western world is dominated by sport and competition, which is not good for ideas of cycling as day-to-day transport, nor for those of road-share. When it comes to personal involvement, many people's idea of a serious cycle run is taking part in a charity ride...something that will have no benefit to cycling as a means of transport...indeed such runs tend to disrupt it. I came out of this exhibition depressed, but unable to fault the faults it made so manifest.

In conclusion, things do not look rosy in cycling history. The serious books are overlooked by writers who cannot resist perpetuating bad and bogus history for popular audiences. Exhibitions set up to try to promote cycling, manage to reflect its exclusivity and incompatibility with current road use. Furthermore, cyclists themselves seem to take pleasure indulging in perpetuating all these things. The problem for cycling history seems almost insurmountable. How to prevent museums perpetuating the display of machines that they see as 'seminal' but are in fact fraudulent or at best misattributed? How to prevent the manufacture and sale of 'Leonardo' bicycle t-shirts in every Italian tourist hotspot? How to prevent even knowledgeable cycle collectors building 'Macmillan replica' machines and describing them as such? Only endless publications, websites and television programs reiterating the bogus as bogus might have some effect. The problems for cycle promotion seem equally irresolvable. It is reasonable to propose that in the 1880s and '90s cycling provided the model for automobilism, in that its proponents, cycling almost entirely for 'healthful' leisure, believed that the public road should be remodelled to prioritise cyclists over all others. Now, sensing a small swing of power, they seem to have fallen back to their old trope. As the old saying goes - 'On yer bike!'

ⁱ Hans-Erhard Lessing was for many years a professor of physics at MIT, and in 1985 became principal curator in the museums of Mannheim and Karlsruhe in Germany.

ⁱⁱ See, for example, *Raleigh: Past and Presence of an Iconic Bicycle Brand*, San Francisco: Van Der Plas Publications, 2011.

ⁱⁱⁱ David V. Herlihy, *Bicycle: The History*, New Haven: Yale University Press, 2006

^{iv} Neil MacGregor, *A History of the World in 100 Objects*, London: Penguin Books, 2011