

# Eye-to-eye with animal draft in France – a case study in a broader ecosystem

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## Abstract

France is a country with a lively draft animal scene that includes use of animal power in real livelihoods such as farming, market gardening, transport, logging, the tourism industry and much more. There is also a global context, so we will look at how the very local fits into the wider picture with a sampling of the actors and the stakes involved, as well as the networking to bring draft animal users together, communicate with the public, recall the places they come to meet together, the historical background and strategies for the future, usually with an emphasis on working cattle. Animal draft supposes a whole matrix of skills, equipment, learning opportunities, organization and motivation. It survives and can even thrive in an ecosystem that recognizes its value and potential to help us keep our household, our global economy, within safe bounds.

## Résumé

La France est un pays doté d'une scène animée d'animaux de trait qui comprend l'utilisation de l'énergie animale dans des moyens de subsistance réels tels que l'agriculture, le maraîchage, le transport, l'exploitation forestière, l'industrie du tourisme et bien plus encore. Il y a aussi un contexte mondial, nous allons donc examiner comment le niveau local s'inscrit dans un contexte plus large, avec un échantillon d'acteurs et d'enjeux, ainsi que le travail en réseau pour rassembler les utilisateurs d'animaux de trait, communiquer avec le public, rappeler les lieux où ils se réunissent, le contexte historique et les stratégies pour l'avenir, en mettant, en général, l'accent sur le bétail de trait. La traction animale suppose toute une matrice de compétences, d'équipements, de possibilités d'apprentissage, d'organisation et de motivation. Elle survit et peut même prospérer dans un écosystème qui reconnaît sa valeur et son potentiel pour nous aider à maintenir notre foyer et notre économie mondiale, dans des limites sûres.

## Kurzfassung

Frankreich ist ein Land mit einer lebendigen Zugtierszene, in der die Kraft der Tiere in der Landwirtschaft, im Gemüseanbau, im Transportwesen, in der Forstwirtschaft, in der Tourismusbranche und in vielen anderen Bereichen eingesetzt wird. Es gibt außerdem auch einen globalen Kontext, daher werden wir uns ansehen, wie sich das sehr lokale in das größere Bild einfügt, mit einer Auswahl von Akteur:innen und Involvierter, sowie der Vernetzung, um die Nutzer:innen von Zugtieren zusammenzubringen, mit der Öffentlichkeit zu kommunizieren, die Orte, an denen sie sich treffen, den historischen Hintergrund und die Strategien für die Zukunft in Erinnerung zu rufen – üblicherweise mit dem Schwerpunkt auf Arbeitsvieh. Die Zugtierhaltung erfordert ein ganzes Geflecht von Fähigkeiten, Ausrüstung, Lernmöglichkeiten, Organisation und Motivation. Sie überlebt und kann in einem Ökosystem besonders gedeihen, das ihren Wert und ihr Potenzial anerkennt. Sie hilft uns dabei unseren Haushalt, unsere globale Wirtschaft, in sicheren Grenzen zu halten.

## Resumen

Francia es un país con un concurrido panorama de animales de tiro y carga, el cual utiliza la fuerza animal en numerosas actividades agrícolas, en la horticultura, para el transporte, la explotación forestal, en la industria del turismo, etc. Partiendo desde una perspectiva global, veremos no solo cómo lo local encaja en el panorama más amplio de actores y sus intereses, sino la formación de redes usuarios de animales de tiro, su comunicación con el público y sus lugares de encuentro. Además se expondrán antecedentes históricos de estas actividades y las estrategias para el futuro. El trabajo con animales de tiro y carga supone toda una matriz de competencias, equipos, oportunidades de aprendizaje, organización y motivación. El reconocimiento de su valor en este ámbito ayudaría a mantener nuestros hogares, nuestra economía mundial, dentro de unos límites seguros.





Figure 1 – Yana Houlier at Ferme de Méras 2013

The “Draft Animals in the Past, Present and Future” congress<sup>1</sup> moved from very global to examples of the very local, as this article will do. It concentrates on networking to understand and promote the use of draft animals, especially cattle, in France, though there is much outreach to Europe and North America. This includes first and foremost the animals and their handlers, but also the groups that promote their training and work, as well as some examples of the events and places where you can see animal draft in everyday use and the ways in which information is communicated. Finally, it takes up two vital issues: the stakes involved today in our world to find a more reasonable relationship with the environment, that is, a proposal for *moving from one ecosystem to another*, and the equally vital transmission of know-how within its own broader “ecosystem” context, through the example of a particular animal draft expert.

Sometimes, the second task is possible, sometimes it is not, or is limited by a generational break in passing on knowledge and skills. There are good examples in France of present-day oxdrivers taking up older skills, either from traditional experts who were raised with them, or by sorting through the threads still left to re-establish good practice and go on to innovate. Some of the innovation in animal draft comes from fine-honing mechanization, thus avoiding or reducing the need for motorization. There is a multitude of busy movers and doers involved, so only a few will serve here to give an idea of what is going on.

1 Congress recording, URL: <https://www.youtube.com/watch?v=TPbbu1XKvJg> [10-02-2022].

Today, especially in France, animal power is being used successfully (and unsuccessfully) in many economic areas and at varying scales, although certainly never at the high-powered level perfected by Amish farmers to be seen in the Horse Progress Days<sup>2</sup> annual meetings that attract many of the essential actors – farmers, animal handlers, equipment-makers, researchers and a public intrigued by the question of whether it is really possible to do farming and food production in other ways than full-scale industrialization with the consequent inputs of synthetic fertilizers, and the pesticides that account for soil sterilization and have contributed to pollinator loss and ecosystem impoverishment more generally. The United States is also home to various groups that can undertake skills training on a simpler level, such as Tillers International<sup>3</sup> or even propose an undergraduate minor degree in draft animal power systems at Sterling College<sup>4</sup>.

The environmental impacts associated with industrial-scale agriculture and stock raising are directly linked to an ecosystem in a broad economic sense, as Xenophon might have put it, how to run your global household. Might it be possible to shift towards a viable ecosystem combining many small-scale agricultural units that could be equally satisfactory with less impact on planetary health, as suggested by Marc Dufumier and Olivier Le Naire, Chris Smaje, Atelier Paysan<sup>5</sup> and others? One concept involving this process can be represented by a “doughnut” (a round pastry with a hole in the middle) that the economist Kate Raworth<sup>6</sup> proposes in order to keep the economy within well-defined social and planetary boundaries so we do not slip over the inside or outside

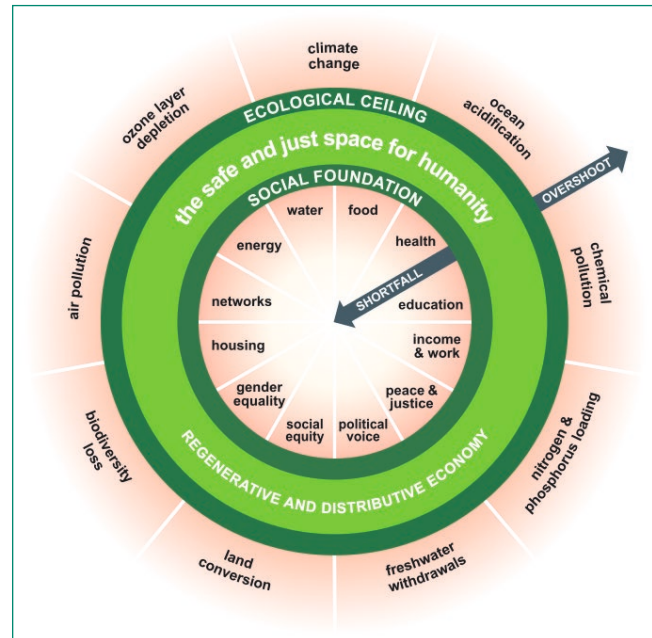


Figure 2 – The concept at the heart of Doughnut Economics

2 Horse Progress Days, URL: <https://horseprogressdays.com/> [10-02-2022].  
 3 Tillers International, URL: <https://www.tillersinternational.org/> [10-02-2022].  
 4 Sterling College, URL: <https://www.sterlingcollege.edu/academics/draft-animal-management-minor/> [10-02-2022].  
 5 Dufumier/Le Naire 2019; Smaje 2020; Atelier Paysan 2021; Id., URL: <https://www.latelierpaysan.org/> [10-02-2022].  
 6 Raworth 2017; DEAL, URL: <https://doughnuteconomics.org/> [10-02-2022].

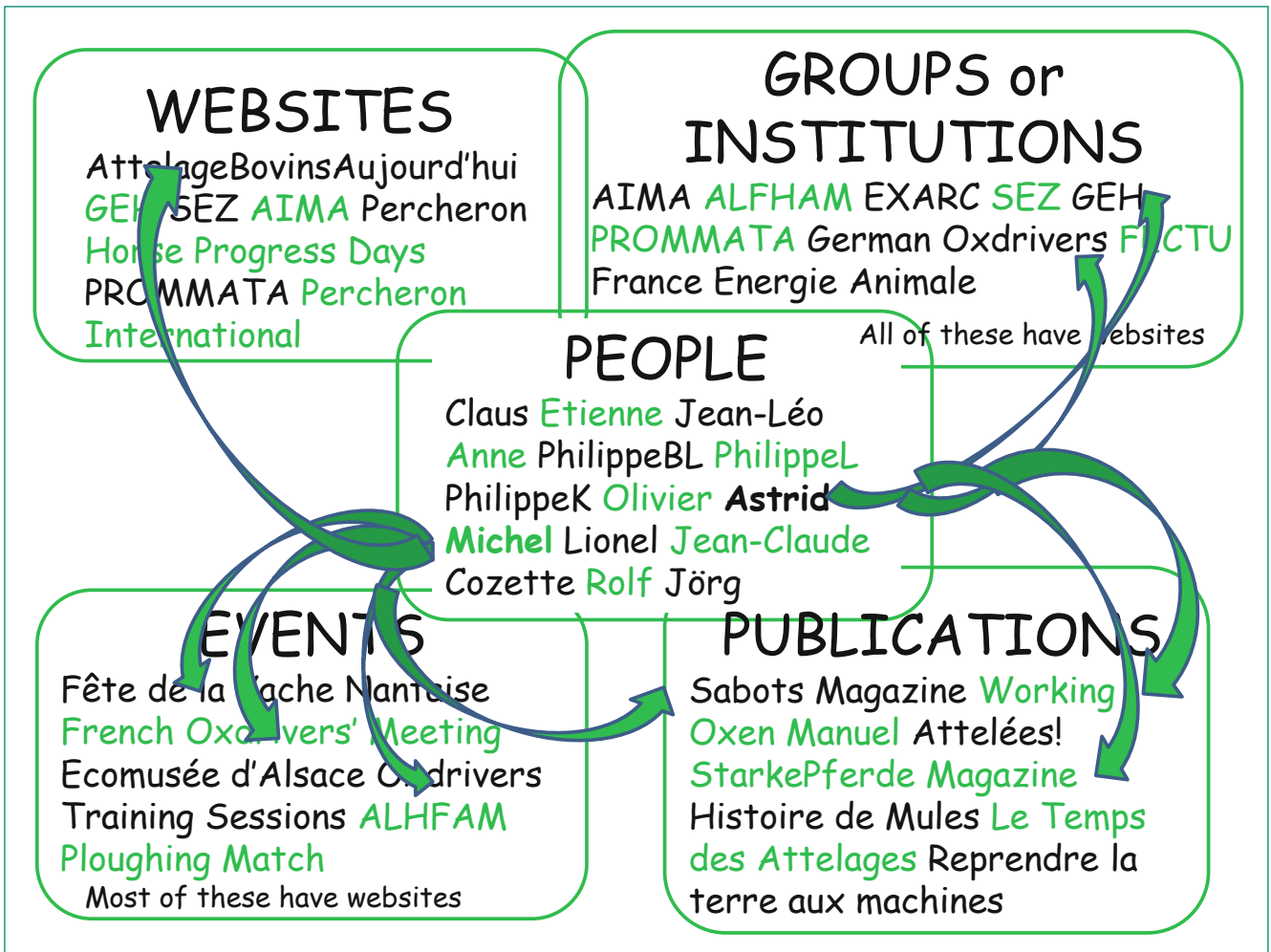


Figure 3 – Sampling of interconnections in draft animal network

edges towards socio-economic distress or ecological disaster. This is expressed in the graphic in Figure 2.

Back to the doughnut<sup>7</sup> and the ideas in it later, as the first of two tasks here is to provide a quick portrait of some of the actors and events in the deeper network of animal draft, especially for working cattle. This can be represented in a graphic on networking with some recent examples (see Figure 3).

Networks are made up of people. If we take only two of our sample people – Astrid and Michel – and begin connecting them with Internet or blog sites, groups or institutions and publications, it is easy to imagine the bigger picture of connections, all the more as so many of these people are in touch with one another. It would look like a totally entangled bush! Now, we can go on with that first task of highlighting a few examples of the connections. There is a list of the people, websites, groups or institutions, publications and events at the end of the paper, although this is a sampling only, that can be used by any reader.

We can take another of our people here to look at the crossing threads in networking – our host for the Draft Animals in the Past, Present and Future congress, Claus Kropp. He is a member of the AIMA<sup>8</sup> (International Association of Agricultural Museums), ALHFAM<sup>9</sup> (Associa-

tion of Living History, Farming and Agriculture Museums), EXARC<sup>10</sup> (Experimental Archaeology Open-Air Museums), as well as of the German Oxdrivers' Working Group<sup>11</sup> (Arbeitsgruppe Rinderanspannung), and all these groups sent out the announcement of the congress through their websites, as did the French blogsite Attelages Bovins d'Aujourd'hui<sup>12</sup> (Working Cattle Today) piloted by Michel Nioulou. So did magazines such as the German *Starke Pferde*<sup>13</sup> (heavy horses), the British *Heavy Horse World*<sup>14</sup> and the French *Sabots*<sup>15</sup>, followed up by post-congress reports in their pages or on their websites.

Taking these networking partners from the other end, the magazines, the German *Starke Pferde* devoted a section to draft cattle in its Summer 2021 issue, rather an exception to the mainly horses rule, stressing in its editorial by Erhard Schroll<sup>16</sup> that the magazine was dedicated to working horses, yes – but also other draft animals (in bold type!). This issue featured the first all-oxen cover, with Claus' and Laresham's David and Darius to introduce

7 Doughnut Economics, URL: <https://doughnuteconomics.org/tools-and-stories/11> [04-02-22].  
 8 AIMA, URL : <https://www.agriculturalmuseums.org/> [10-02-2022].  
 9 ALHFAM, URL : <https://alhfam.org/> [10-02-2022].

10 EXARC, URL : <https://exarc.net/> [10-02-2022].  
 11 Arbeitsgruppe Rinderanspannung, URL : <https://www.zugrinder.de/en/home.html> [10-02-2022].  
 12 Attelages Bovins d'Aujourd'hui, URL: <http://attelagesbovinsdaujourd'hui.unblog.fr/> [10-02-2022].  
 13 Starke Pferde, URL : <https://www.starke-pferde.com/> [10-02-2022].  
 14 Heavy Horse World, URL: <https://www.heavyhorseworld.co.uk/> [10-02-2022].  
 15 Sabots, URL: <https://www.sabots-magazine.com/accueil/accueil.php> [10-02-2022].  
 16 Schroll 2021.



the article “Draft oxen in the service of archaeology”<sup>17</sup> at the heart of the 1:1 reconstitution of their 8th-9th-century site with central court buildings that include living and working spaces, as well as gardening, pasture and farming activities, their “open-air research laboratory”. Among their objects of study is how cropping on ridge-and-furrow functioned, as it has been detected by LiDAR (airborne laser scanning) for many medieval sites. The experimental fields, with control fields nearby, are manured by the Lauresham livestock, and even the soil “climate” is analyzed. This provides a wealth of information, including a result quite pertinent for farming in today’s highly variable climatic conditions: the difference between the high and low profiles of the furrows provides soil conditions that minimize risk and appear to give quite satisfactory average yields over time. Networking? Claus presented these results, not in the earlier *Starke Pferde* article, but in his PowerPoint for the July 2021 AIMA congress<sup>18</sup>.

Staying with the same issue of *Starke Pferde* for the moment, the magazine featured a full-page announcement of Astrid Masson’s *Working Oxen Manual*<sup>19</sup>, which includes chapters by the cattle behavior specialist Anne Wiltafsky and by Rolf Minhorst<sup>20</sup>, specialist on the German adjustable three-pad cow collar, amply illustrated in the Working Group website’s photo library. *Starke Pferde* added an article by the group’s photographer, Edwin Rotzal<sup>21</sup>, on a truly emblematic farmer, Matthias Höwer and his draft cattle. Matthias remembers well that right into the 1960s, there were some thirty pairs of working cattle, usually cows, around his home in the Westerwald and he is today one of the champions of the old Rhineland-Pfalz Glanrind breed, as well as being a successful “modern” farmer.

In the usual international cooperation effort among magazines, British *Heavy Horse World* and French *Sabots* ran articles by Cozette<sup>22</sup> on Claus’ draft animal congress with special emphasis on many of the points mentioned here and especially on promoting the positive image of animal draft. This has long been among the aims of both magazines, although HHW has often concentrated on coach transport and farming or market gardening, while *Sabots* has developed a broad approach facilitated by the great variety of activities involving especially working horses in France: logging, especially in “sensitive” environments, small-scale farming or market gardening using equipment like the *kassine* designed by PROMMATA<sup>23</sup> and the products of other harness- and implement-makers. Many environments are vulnerable to machine damage or simply inaccessible, such as riverbank, wetland and much forest maintenance – from light-touch transport to fern-bashing or broom-extraction in dune areas – not to mention the thriving work in French vineyards to avoid soil compaction or biodiversity loss. The human factor is much emphasized in *Sabots*, with “town horses” mobilized for “bussing” school children, waste pick-up, greenery-watering or tourism.

*Sabots* has a stable of regular authors like Jean-Léo Dugast, specialist on the Percheron horse<sup>24</sup> breed, the American Horse Progress Days and Amish farming, as well as nearly all the subjects mentioned above, or Etienne Petitclerc, who shares his rich historical document collection on draft animals, implements and vehicles. Jean-Léo authored the definitive *L’Age d’Or du Cheval Percheron* (Golden Age of the Percheron)<sup>25</sup> and Etienne the panoramic *Attelées*<sup>26</sup>, a “Tour de France” of animal draft, a worthy continuation of the earlier works by Philippe Berte-Langereau that document ox draft and carting in the Morvan region<sup>27</sup>. *Sabots* likewise reports on festive activities of many kinds, among them the 25-year old mid-August event at the Perche Ecomuseum, the Percheron Horse Fête bringing together breeders, coach-users from France and Germany, the Republican Guard mounted corps in 2021, implement-makers, all wound up by a parade of the participating teams, including the riding and coach-racing specialists.

Jean-Léo Dugast’s decades-long contributions to draft animal promotion were honored in another major event in 2018, the four-yearly Festival of the Nantaise Cattle Breed in Le Dresny, when all the high ground was given over to animal draft, from donkey to mule to horse to oxen. The highlight for the oxdrivers was the final “Grande Attelée” (Long Team), hitching five pairs of oxen to plough together. It was an event with a second special guest of honor, Laurent Avon<sup>28</sup>, retired from the Breeds Institute, who devoted his spare time, also for decades, to the census of working oxen now continued by Michel Nioulou, Philippe Berte-Langereau, André Kammerer and his grandson Corentin Huber, volunteer oxdrivers for the events at the Ecomuseum of Alsace<sup>29</sup>. This is where the expert oxdriver Philippe Kuhlmann is the center of the (usually) annual meeting of Oxdrivers of Alsace and Beyond, as well as managing his highly popular twice-yearly training courses on working with cattle. The Alsace museum is another hot spot for exploration of the past in the present and future, with its “Theatre of Agriculture” that helps the public re-assess traditional farming practices and the traditional crops so often deeply matched with the region’s soils, now widely replaced by maize.

These events, actors and museums are prime movers and bring us round to the second task proposed – of assessing the equally vital transmission of knowledge and skills within their broader “ecosystem” context. For harness, there is certainly the three-pad collar, as still made by saddlers such as Jean-Claude Mann<sup>30</sup> in Alsace or Hansrüdi Blaser<sup>31</sup> in Switzerland. Traditional wooden ox yokes are made by specialists like Lionel Rouanet<sup>32</sup>, who “studied” with the master yoke-maker René Alibert,

17 Kropp 2021b.

18 Id. 2021a.

19 Masson 2015.

20 Minhorst 2007.

21 Rotzal 2021.

22 Griffin-Kremer 2021a; Id. 2021b.

23 PROMMATA, URL: <https://assoprommata.org/?lang=en> [10-02-2022].

24 Percheron International, URL : <http://percheron-international.blogspot.com/> [10-02-2022].

25 Dugast 2019.

26 Petitclerc 2016.

27 Berte-Langereau 1996; Id. 2000.

28 Avon 2006.

29 Ecomusée d’Alsace, URL: <https://www.ecomusee.alsace/fr/> [10-02-2022].

30 Jean-Claude Mann, URL: <https://www.xn--tapissier-dcorateur-lzb.fr/mann-muhlbach-sur-munster/artisan/296/> [10-02-2022].

31 Hansrüdi Blaser, URL: <https://www.blaser-sattlerei.ch/en/home> [10-02-2022].

32 Lionel Rouanet, URL: <http://attelagesbovinsdaujournunblog.fr/2013/05/06/geometrie-des-jougs-occitans-par-lionel-rouanet/> [10-02-2022].

or Michel Nioulou, the oxdrivers' information "hub" with his blog site. For the animal handling skills, the individuals mentioned, such as Philippe Kuhlmann in Alsace for cattle, who is compiling his own oxdrivers' manual<sup>33</sup>, offer training courses. Hopefully, Philippe's manual will take up where the "grandfather" of ox-driving skills, François Juston, had to leave off with his *Quand la corne arrachait tout* (When horns tore it all away)<sup>34</sup>. There are several groups effectively coordinated by France Energie Animale<sup>35</sup> able to respond to the demand for training horse and donkey handlers, the large European Centre for Draft Animal Resources and Research<sup>36</sup> (CERRTA) or the FECTU<sup>37</sup> (European Federation for Draft Horse Use and Promotion). Authors like Jean-Léo Dugast, Etienne Petitclerc or Philippe Berte-Langereau have provided ample historical material. What is missing at times is local historical context and the big picture drawn from comparative observation, as so effectively carried out by François Juston. At least a small contribution to that can come from an inquiry carried out with the ox- and mule-driver, specialist in rare horse breeds like the Merens, Olivier Courthiade, in the Ariège area in southwest France.

Olivier has an exemplary collection of yokes – many in the Alzen Ecomuseum – as well as historical documents, including books, photographs, older postcards and models, not to mention a vast collection of harness. He also knew the elder statesmen in his area, the breeders and dealers (*maquignons*) who until the mid-twentieth century were at the heart of the great cattle and horse fairs, like "La Madeleine" in Montesquiou in the Gers *département* that brought together thousands of animals until it came to an end in the mid-1970s. "Statesmen", yes, but their wives and families were ever-present, beside them at work, during our visits in their homes and to see their recollections. They bear witness to decades of savvy dealing, rich storytelling, even of family tragedy during WWII, then the decline of an entire world of business in a single generation. They turned around quickly, as a rule, and became just as savvy larger-scale breeders attuned to markets and the latest machines, but they kept yokes, harness, tools, bells, fly masks, goads and other accessories on the walls alongside their award plaques.

During the interviews, with everyone bent over old photos, Olivier was careful to ask the same questions, so that their answers could be compared, often enlivened by clear disagreement about how an event really unfolded, and there was many a tale. In between visits, Olivier sat down at home to comment on his own collection, detailing many of the fine points the elder friends had evoked. One postcard spoke to him of the black smocks that the *maquignons* always wore and he read the postcard caption in Occitan, before pointing out that there are two Casta breed oxen in the throng of Gascon cattle, but all of them are "dressed" in their *mante* (mantle), because no owner would take an animal to the fair "naked". Another photo recalled the depth of expertise and grasp of the big picture possessed by François Juston, who understood the special *cuisine* – all the ingredients in their

context, from breed to soil to land gradient to weather – that once went into each micro-territory's traditions in oxdriving. Yet another picture was taken in the mid-1960s at the Montesquiou fair of a pair of Gascons with the ideal "cradle-shaped" horns (*en berceau*), known for their outstanding character, that is, they were the Harley Davidsons of oxen. A photo taken in the Aubrac region recalls two different ways of signaling to oxen to stand with the goad: leaning it upright against the yoke between them as in Ariège, but if they moved suddenly, the point might gouge out an eye, an argument for simply laying it across the back of their necks as in the Hautes Pyrenées – two different "codes" understood by human and animal. There, you have a small sample of the *cuisine* that made up cohesive, if deeply diverse systems of work, in a four-minute extract from one interview. Much of Olivier's own work with cattle and mules, as well as construction of the Landais yoke for the latter, has been documented by the film-maker Vasco de Lima<sup>38</sup> of the Association Le Trait.

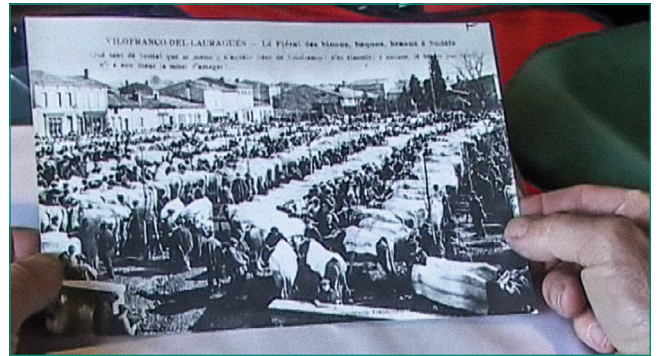


Figure 4 – Olivier Courthiade explaining the cattle fair at Villefranche de Lauragais, Haute-Garonne Département

Now, it is but a flea's hop from local cuisine to Kate Raworth's doughnut, from micro-ecosystems to a global goal. In the older ecosystem that used ox draft as the only energy available, at times right through the 1960s, all the components were still intact: know-how, vehicles, implements, tools, cattle, service providers, hubs of commerce, with all the choices available to make working with cattle efficient. That ecosystem disappeared almost overnight. The 2013 UNCTAD Report<sup>39</sup> with its promising title – *Wake up before it is too late / Make agriculture truly sustainable now for food security in a changing climate* – speaks of working animals only to mention rustling and the tragic theft of donkeys in Africa today to use their skins in traditional medicine. On top of that, the cover portrays a small farmer ploughing with two oxen... in an industrial-sized field, surely an unwitting fake. The UNCTAD 2021 Report<sup>40</sup> also calls for everyone to stop and think about other ways to produce food and run economies, featuring section titles such as "It's the end of the world as we know it". Out of 164 mentions of "energy", associated with "renewable", "transition", "efficiency", "clean" and "green" including wind, sun and water, there is none referring to animal power. ("Power" is limited to hydro- and political power.) To the UNCTAD Report's credit, there is ample discussion of fitting within boundaries, as in Raworth's

33 Kuhlmann 2022.

34 Juston 1996.

35 France Energie Animale, URL: <https://www.energie-cheval.fr/menu-secondaire/france-energie-animale/> [10-02-2022].

36 CERRTA, URL: <https://www.formationtractionanimale.com/> [10-02-2022].

37 FECTU, URL: <https://www.fectu.org/> [10-02-2022].

38 Lima, URL: Trait <https://www.youtube.com/channel/UC-U6Coqwo6kn4oPkwpdBODg/featured> [10-02-2022].

39 UNCTAD 2013.

40 Id. 2021.



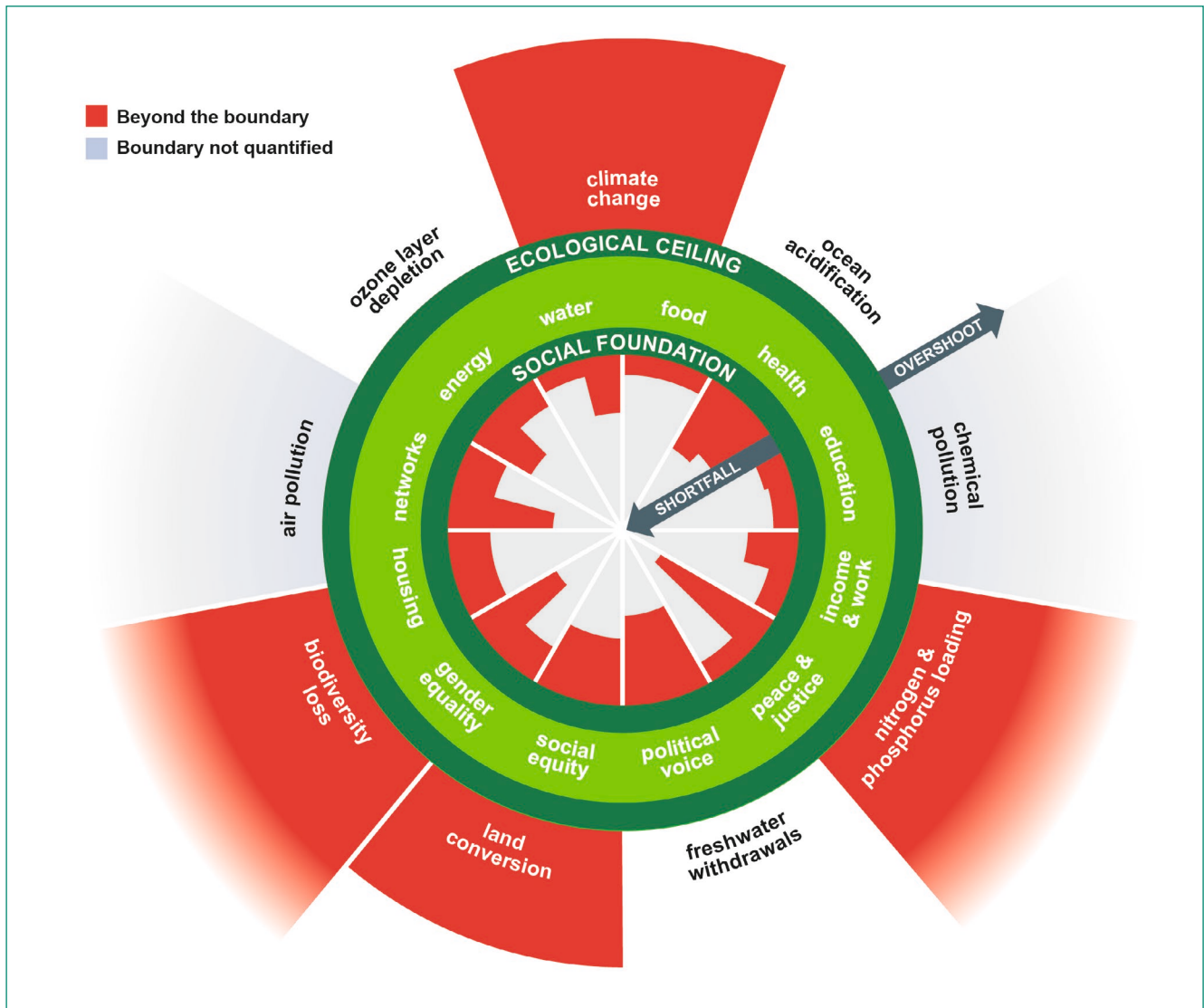


Figure 5 – Doughnut economics and planetary boundaries

doughnut. The doughnut graphic on overspill speaks for itself, with the planetary boundaries put forward by the Earth-system scientists led by Johan Rockström<sup>41</sup>.

Obviously, economists and earth science teams are compatible co-workers, perhaps just as draft animals can work well with humans towards efficient food production and other activities that keep us within environmental boundaries. The networks you see only a glimpse of in the Draft Animals Congress are certainly important in bringing a diversity of actors together, but they are not sufficient. Using animal draft anywhere in the world requires generational transmission as well as vertical recognition running from agriculture ministries to unions, training institutions and on to farmers, market gardeners, stockbreeders and consumers, so that we could stop excessively extractive practices and get food systems back into the doughnut. Is it possible to take some of the earth back from machines, without renouncing mechanization, even with partial motorization? Can industrial agricultures be rethought into smaller units, as suggested by proponents of agroecology, agroforestry, permaculture & Co., most especially practices that regenerate the soil and avoid the pollution of water and air we are familiar with?

Might we be on the cusp of new ecosystems that could involve animal draft, where it can be practiced efficiently enough to underwrite decent incomes for the people using it? The variety of thinkers and doers who participated in 'Draft Animals, Past, Present and Future' most certainly contribute to this!

41 Rockström, URL: <https://www.stockholmresilience.org/research/planetary-boundaries.html> [10-02-2022].

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## List of Figures

**Title** (Baptiste harnessing one of Olivier Courthiade's pair of oxen for a tour on a local road near the Ferme de Méras, Nescus, La Bastide de Sérou, in the Ariège region of France, summer 2011) – C. Griffin-Kremer.

**Figure 1** – O. Courthiade.

**Figure 2** – DEAL, URL: <https://doughnuteconomics.org/tools-and-stories/11> [04-02-22].

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