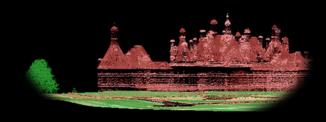
TRAIL 2016



Training and Research on the Archaeological Interpretation of LiDAR Chambord (Loir-et-Cher, France) 17 - 20 May



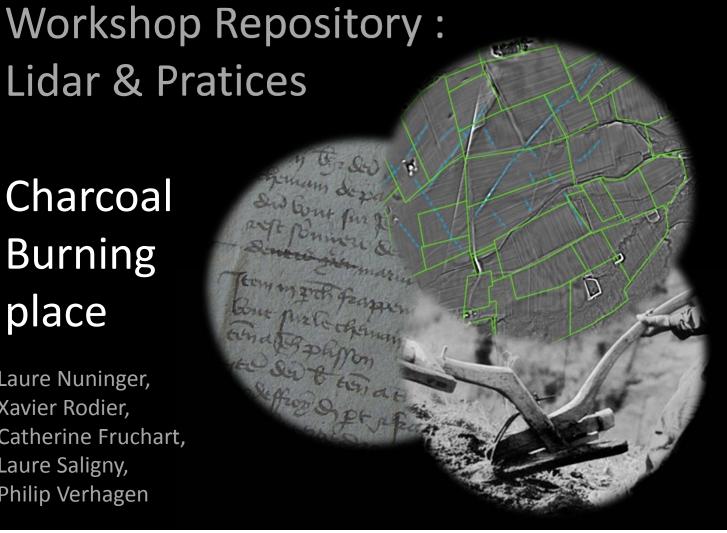








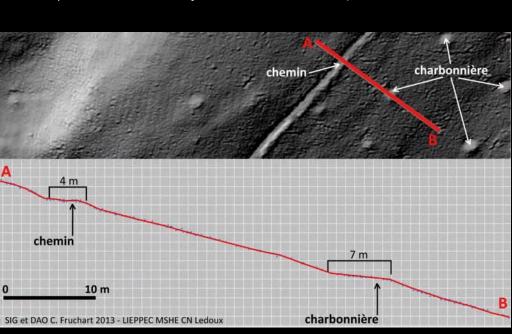
Laure Nuninger, Xavier Rodier, Catherine Fruchart, Laure Saligny, Philip Verhagen



Charcoal place



Charcoal platform forest Besançon. Photo: D. Daval 2010)





Charcoal oven (Savoie, France), photo : Gérard Barré 2011 http://www.sentier-nature.com/)

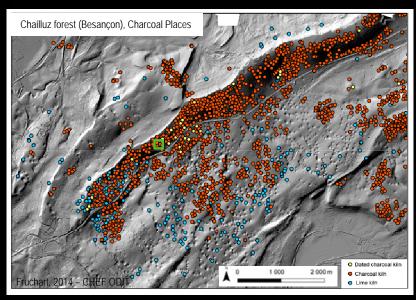


Charcoal place



Extraction of charcoals from the middle to the outsideduring the unloading of the kiln (photo Aurore Dupin)







Charcoal place











Earth Pit Kilns

The process of using an earth pit kiln begins by stacking wood in a pit, sealing it with a layer of grass and soil and starting carbonization by igniting the wood at one end. Earth pit kilns are typically large and large pieces of wood can be used. But can these kilns can also be built in small size and can thus, be suitable for families and even individuals.

Pit kilns are labor intensive since a pit must be dug into the ground. Ventilation may also be difficult to control and often carbonization is incomplete, producing only low quality charcoal. To improve efficiency, pit kilns can be equipped with a chimney which allows the use of biomass other than wood, such as coconut shells.

Earth Mound Kiln

wood is collected and stacked in the polygonal shape of kiln. The wood is then covered with a layer of grass and the construction is sealed with soil. A small opening allows the control and monitoring of the process. When the kiln has been lit, it requires continuous attention for 3 to 15 days depending on the size. After the kiln has cooled down charcoal can be harvested. The main advantage of this type of kiln is that it can be constructed easily without cost at the harvest site.

Downsides are that carbonization takes rather long and the process requires continuous attention. In addition, charcoal quality is rather low and efficiency is only between 8 and 15 %. Therefore charcoal production using traditional kilns is associated with high consumption of wood. Nonetheless, earth mound kilns are typically more efficient than earth pit kilns.

Archéologie de la forêt

Exploitation des ressources ligneuses Les charbonnières



























Archéologie de la forêt Exploitation des ressources ligneuses Les charbonnières Z (exagération verticale x2) Z (exagération verticale x2)













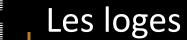








Archéologie de la forêt



























Archéologie de la forêt

Exploitation des ressources ligneuses



Les loges























