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The beginning of the Neolithic in the Po Plain (northern Italy): Problems and perspectives

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ABSTRACT

The Po Valley is one of the major physiographic units of northern Italy. It can be considered as a key area for the interpretation of long-term historical events and processes because of its location midway between the Mediterranean world and continental Europe. This paper is an updated summary of our knowledge of the Early Neolithic farming communities of the region. In particular it discusses data derived from radiocarbon dated sites. Its aim is to provide the international audience with an updated view of the topic, based on the discussion of a new series of AMS radiocarbon results, to frame the earliest producing communities of the Po Valley into the more general picture of the Neolithization of Italy. To achieve the goal, apart from radiocarbon assays, we have taken into consideration material culture remains, subsistence economy, environmental resources, and data gathered from archaeometric analyses and technology.

1. Introduction

According to the opinion of non-native scholars, much of the work published by the Italian archaeologists on the Neolithic of Italy during the last decades "*can often be characterized in terms of an obsession with typometric description of ceramic and lithic artefact attributes and their stylistic affinities*" (Skeates, 2014: 1) and that Italian prehistory is "*still married to an exclusively chrono-typological model*" (Pearce, 2014: 157).

Furthermore, as remarked by foreign colleagues (Pearce, 2013: 11) a further difficulty is that much important archaeological literature about Italian prehistory is published in Italian and in local editions that have little circulation even in Italy and none at all abroad.

Bearing in mind the above premises the scope of this paper is an attempt to update our knowledge on the Early Neolithic period in the Po Plain of northern Italy in a wider perspective. The paper focuses mainly on the discussion of the data retrieved from radiocarbon dated sites that started to be discovered already just after the middle of the 19th century (Chierici, 1875a, 1875b, 1877). Its aim is to provide the international audience with an updated view of the topic, based on a series of new, unpublished radiocarbon dates, discussing the previously available results, in order to frame the earliest producing communities of the Po Valley into the more general picture of the Neolithization of Italy. As a consequence, the present paper does not deal exclusively with material culture remains. In contrast, it takes into consideration subsistence economy, environmental resources, data gathered from archaeometric analyses and technology.

2. The present and the past landscape: environment and resources

The Po Valley is one of the major landscape physiographic units of Italy. It extends approximately 650 km in an east-west direction, running from the Western Alpine arc, where the Po River, the longest watercourse of the Peninsula, originates, down to the Adriatic Sea (Fig. 1). It covers an area of ca. 46,000 square kilometers including its Veneto extension not actually related to the Po River basin. The flatlands of the Veneto and Friuli regions are considered apart since they do not drain into the Po, though they effectively

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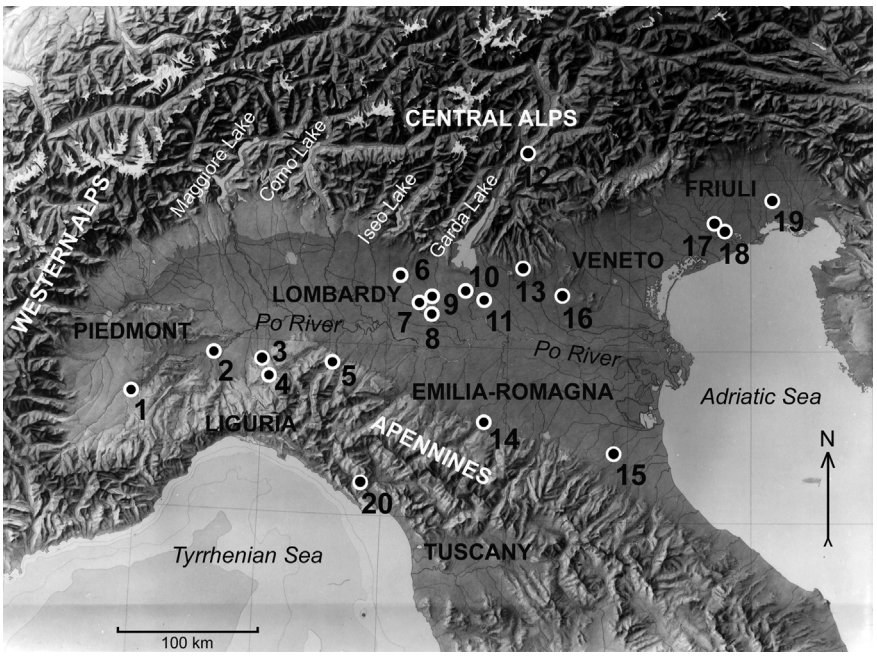

Fig. 1. Map of northern Italy with localities and Early Neolithic sites mentioned in the text: 1) Alba (CN); 2) Il Cristo (AL); 3) Cecima (PV); 4) Brignano Frascata (AL); 5) Travo (PC); 6) Il Vallone di Offlaga (BS); 7) Ostiano (CR); 8) Vhò di Piadena (CR); 9) Isorella (BS); 10) Cavriana (MN); 11) Roverbella (MN); 12) Riparo Gaban (TN); 13) Lugo di Grezzana (VR); 14) Fiorano (MO); 15) Lugo di Romagna (RA); 16) S. Giustina di Baldaria (VR); 17) Fagnigola (PN); Valer (PN); 19) Sammardenchia (UD); 20) Pianaccia di Suvero (SP).

combine into an unbroken plain. The plain itself is the surface of an in-filled system of ancient canyons (the "*Apennine Foredeep*") extending from the Apennines, in the south, to the Alps, in the north, including the northern Adriatic. The altitude of the valley through which the Po River flows, exclusive of its tributaries, varies from approximately 4 m below sea level in the Polesine sub-region that corresponds to the present delta around the town of Ferrara, to ca. 2100 m at the river's origin in the southern Piedmont province of Cuneo (Pian del Re, Monviso). The Po Valley is crossed by a number of affluents running down from the Alps, in the north, and the Apennines, in the south; some of them are draining lakes of glacial origins (i.e. Lake Maggiore, Como, Iseo, and Garda).

The northern part of the valley is broadly divided into an upper, drier part, often not particularly suited for agriculture, and a lower, very fertile, and well irrigated section. A specific feature dividing the lower plain from the upper part is a geologic feature called the *fontanili* ("spring") line or zone (Muscio, 2002) where the surface water of the mountain streams that tends to disappear underground, spring out again. At present, the Po Valley has a mild continental and a humid subtropical climate. Extensive deforestation and consequent anthropic and natural erosive processes flattened the original low undulations of the natural alluvial landscapes of the Po Valley, nowadays characterized by large extensions of bare, monotonous, flat agricultural landscapes (Sereni and Burr Litchfield, 1997).

Archaeobotanical data derived from pollen and charcoal analyses indicate that northern Italy suffered indeed major deforestation starting from the Bronze Age (Cremaschi, 1983; Nisbet, 2013). The data presently at our disposal, derived from archaeobotany, indicate that most of the Early Holocene landscape of the Po Plain was covered by a thick, deciduous forest. However, anthracological analyses of charred wood samples retrieved from Early Neolithic sites show quite a different picture, with an environment formed by light-demanding trees and essences characteristic of riverbanks and gravelly or sandy soils (Nisbet, 2013). This environment is that typical of the fluvial terraces where the Early Neolithic settlements are located and it has the advantage of providing seasonal pasturage for livestock in an otherwise wooded environment (Bogaard, 2004). The conclusion achieved in a recent synthesis of the anthracological data from the Po Valley suggests that the Early Neolithic sites reflect short-period occupations with a low impact on the local vegetation cover, and a preference for natural, open areas along the watercourses, an ecological environment particularly rich of natural resources (Nisbet, 2013: 10).

3. The chronological frame

Unfortunately, the reliability of the radiocarbon results obtained prior to the introduction of the AMS method is questionable, and many important sites and sequences should be re-dated (Skeates, 2014). This is the case for the radiocarbon dates combining several charcoal species that, among many others, bear the inherent risk of 'old wood effect'. The available data obtained from sites attributed to the Fiorano and Vhò cultural aspects are listed in Table 1 and plotted in Fig. 2, together with a few new unpublished AMS dates, among which are some that therefore were not included in the most recent summary written by M. Pearce (2013).

The high number of different laboratories involved in dating (10) is symptomatic. It clearly shows that the dates do not derive from any planned research strategy. Out of 39 assays, 17 are from four different research laboratories, 20 from five commercial institutions, and 2 from an unknown laboratory. Only 9 measures have been obtained from short life specimens among which are charred wheat or barley caryopses, and 3 are from hazelnut shells. Moreover 21 are conventional and only 18 AMS dates. Ten dates have standard deviations equal or higher than 100 years, which makes them almost useless. In addition, most assays are from unidentified charcoals (22), and 2 from unidentified bone specimens stored for decades in museum collections.

It is evident that the results at our disposal, often derived from unsystematic sampling, provide us with a rather imprecise picture of the chronology of the Early Neolithic settlement of the Po Valley.

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