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# Quaternary International

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## Radiocarbon chronology of terminal Pleistocene to middle Holocene human occupation in the Middle Cauca Valley, Colombia



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### ARTICLE INFO

#### Article history:

Available online 6 January 2015

#### Keywords:

<sup>14</sup>C dating

Preceramic occupations

Early Holocene

Middle Holocene

Volcanism

Colombia

### ABSTRACT

Archaeological research over the past two decades in the Middle Cauca region of central Colombia has documented numerous preceramic sites dating from the terminal Pleistocene to middle Holocene, along with substantial artifactual and archaeobotanical evidence for early plant use and food production. We present a radiocarbon chronology of 26 sites, including dates previously available only in unpublished reports, and 36 new AMS dates from 11 sites. This chronology solidly establishes the preceramic (before 3600 <sup>14</sup>C BP) human occupation in the Middle Cauca. The earliest date clearly associated with cultural evidence of occupation is 10,619 ± 66 <sup>14</sup>C BP at the site of Cuba. Four sites show occupation before 10,000 <sup>14</sup>C BP, but between 10,000 and 9000 <sup>14</sup>C BP, this number increases to eleven sites. Thereafter, despite evidence of episodic volcanic activity, there is a relatively constant and continuous sequence of human occupation in the region, although small localized population movements may have occurred. The fertility of periodically renewed andisols likely attracted settlement and continued occupation of the region by people practicing early plant cultivation, based on the archaeobotanical evidence for the early adoption and use of domesticates.

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### 1. Introduction

The Middle Cauca archaeological region is situated in the Northern Andes of Colombia, extending from the Department of Caldas in the north to the Department of Valle de Cauca in the south, with the Cauca River as its central axis (Fig. 1). Geographically, it is a very heterogeneous region that includes the lowlands of the Cauca River valley, the eastern slopes of the Cordillera

Occidental, and the western slopes of the Cordillera Central (locally known as the Macizo Volcánico). The Calima Valley is also considered part of the Middle Cauca archaeological region even though it sits on the western slope of the Cordillera Occidental. In this paper, we focus on the eastern part of the Middle Cauca, in the piedmont between the Cauca River and the highlands of the Cordillera Central, where recent archaeological investigations have concentrated.

Over the past two decades, numerous preceramic sites dating from the terminal Pleistocene to the middle Holocene have been identified through archaeological research in the Middle Cauca region (e.g. INTEGRAL, 1997; Patiño et al., 1997; Rojas and Tabares, 2000; Tabares and Rojas, 2000; Rodríguez, 2002; Cano, 2004, 2008; Tabares, 2004; Cardale de Schrimppff et al., 2005; Aceituno and Loaiza, 2007; Restrepo, 2012, 2013a,b). We use the term

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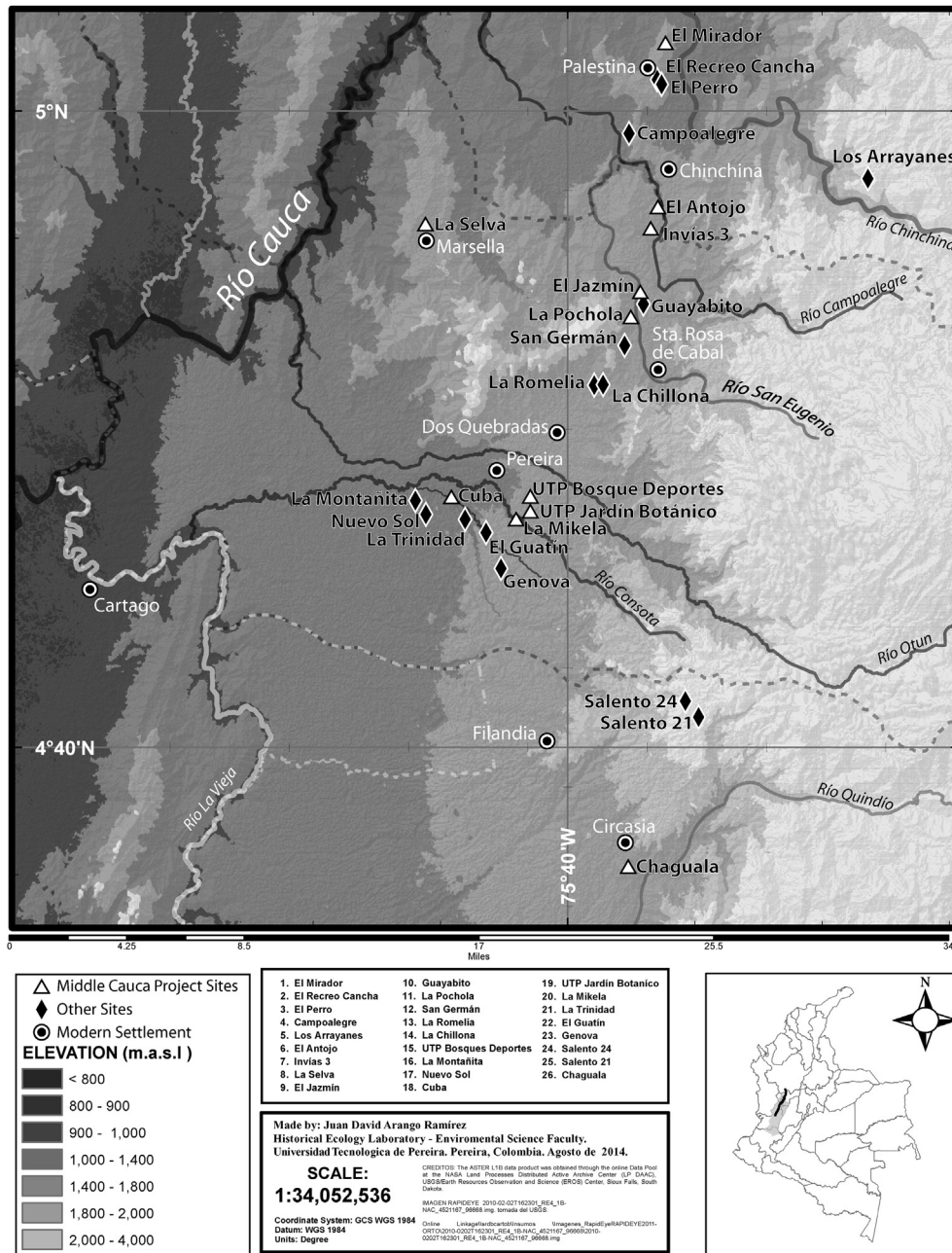


Fig. 1. Map of the Middle Cauca region showing site locations.

preceramic to refer to all cultural periods prior to the appearance of the first ceramics in the Middle Cauca region around 3600  $^{14}\text{C}$  BP (Bray, 1989; Bruhns, 1994; Cano, 1995, 2004; Patiño, 1996; INTEGRAL, 1997; Restrepo, 2006, 2012; Jaramillo, 2008; Herrera et al., 2011). Lithic assemblages remained remarkably similar from ca. 10,000–3600  $^{14}\text{C}$  BP (hereafter BP; calibrated dates given as cal B.C. or cal A.D.) (INTEGRAL, 1997; Aceituno and Loaiza, 2007). These preceramic assemblages consist of simple stone tools on flakes, flaked and/or polished stone hoes (*azadas*), handstones, and milling stone bases. Bifacial projectile points and formal tools are rare (but see Bruhns, 1976; INTEGRAL, 1997; Herrera et al., 2011; López and Cano, 2012; Restrepo, 2012). The large number of plant

processing tools points to an early focus on plants that is not shared with patterns witnessed in the neighboring Middle Magdalena Valley and the Bogotá Plateau (Correal and Van der Hammen, 1977; Correal, 1986; Nieuwenhuis, 2002; López, 2008a,b; López and Cano, 2012).

The importance of plant resources during the preceramic period has been confirmed through the recovery of archaeobotanical evidence of economic plants, including several domesticates, by 7000 BP (Aceituno and Loaiza, 2007, 2015; Aceituno and Lalinde, 2011; Aceituno et al., 2013). The presence of domesticates indicates the early adoption of plant cultivation and horticultural practices in the region, reflecting patterns observed elsewhere in

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