

# Terrace Horticulture in Latin America

Jake Farley & Hannah Smith

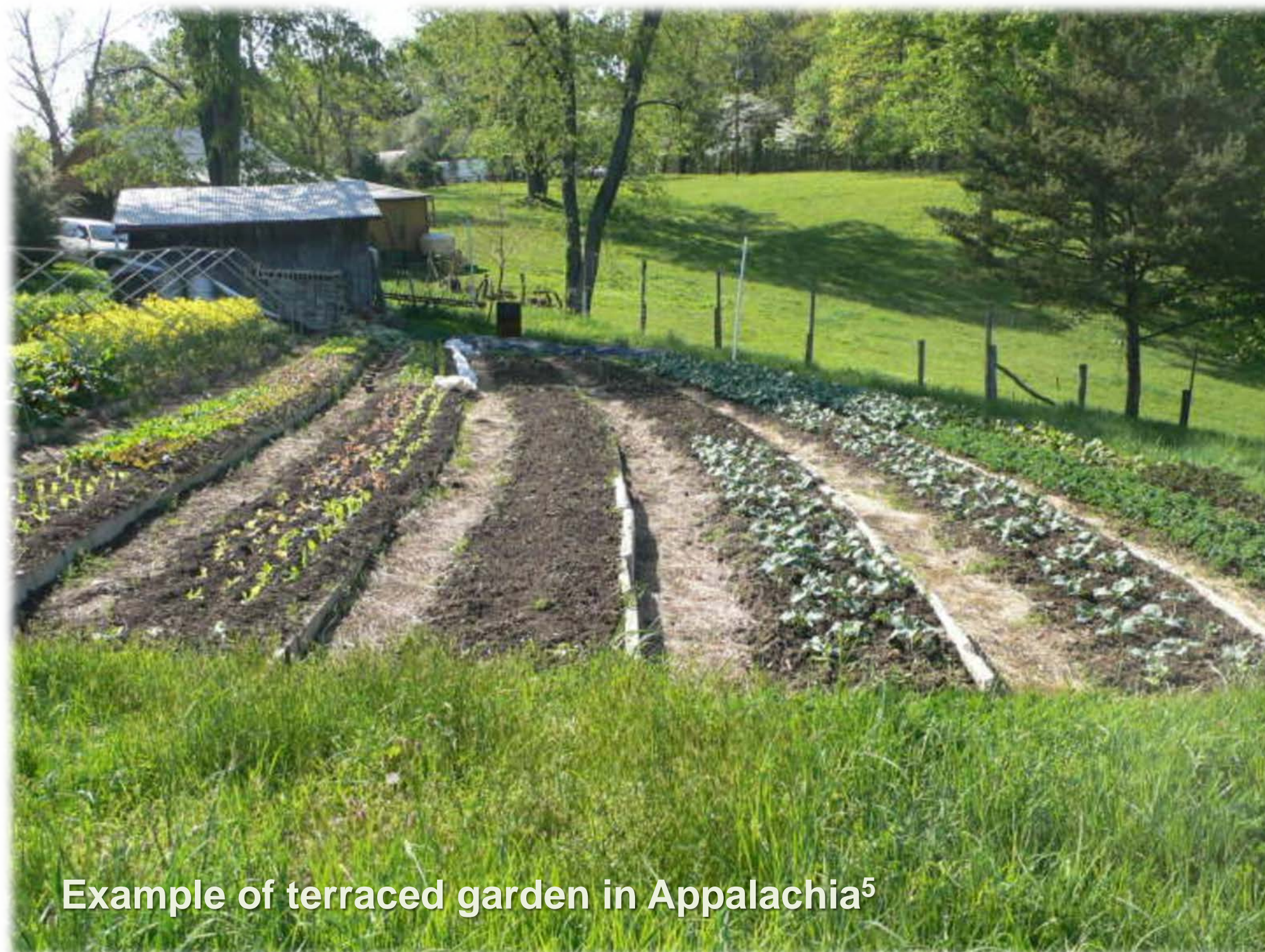
## Historical Practices

The growth of the Inca Empire (AD 1400-1532) can be attributed to terrace gardens.<sup>1</sup> In the Andean highlands, lack of flat land and an abundance of soil erosion created issues for growing food. As a result, farmers exploited higher elevations with favorable precipitation and soil conditions by constructing tiered terraces on the hillsides.<sup>2</sup> By building stone retaining walls, water runoff was slowed and allowed crops to be well irrigated.<sup>2</sup>

Latin American farmers usually constructed these terraces by hand, first by cutting dry brush and placing it horizontally along a hillside. As rains wash sediments into these barriers, the tiers are created, after which stones are carefully positioned in front of the brush to create porous terrace walls.<sup>2</sup> This method gives the hills of Peru and other Latin American countries the appearance of steps leading into the mountains. Shortage of food no longer became a problem as miles of hillsides thrived with crops grown from the adaptive application of horticulture through controlled irrigation.

## Local Applications

The topography of land in Appalachia shows little access to flat land and makes it difficult for locals to participate in large scale agriculture. However, adopting terracing practices would provide more land for horticultural practice. Farmers in Appalachia are already practicing smaller scale garden terracing in uneven plots of land. The mountainous terrain of Appalachia is prime territory for terrace farming and in turn, job creation.<sup>5</sup>



Example of terraced garden in Appalachia<sup>5</sup>



Example of crops grown in terrace gardens<sup>6</sup>

## Challenges & Contemporary Renewal

Since many terraces have been in place for centuries, erosion is of high concern to many farm owners. Maintenance on terraces is constant, but due to the shortage of labor because of out migration among families, stone wall slides are common and in need of constant repair.<sup>4</sup>

Because terrace horticulture developed simultaneously with settlements, the survival of this method of farming that has continued for centuries is based in the community.<sup>3</sup> Each family is responsible for the terrace on their land, so the sharing of cultural knowledge between generations is essential. Currently, most farmers are invested in preserving this unique way of life by rebuilding terraces and preventing erosion.<sup>2</sup> Therefore, they are still cultivating both knowledge and plants in these terraces gardens.

Although many families are attempting to delay erosion to terraces, some have let the elements have their way. Children can now be seen playing soccer on the eroding terraces.<sup>2</sup> However, terrace gardens remain one of the most culturally adaptive strategies to integrate effective horticulture into the environment without destroying the ecosystem.



Example of terrace farming near Colca Canyon, Peru.<sup>6</sup>