

Yaasuchi Clay Survey

2012 Field Season

Regular text indicates field notes and comments.

Italicized text indicates notes taken in the lab as clays were processed and made into tiles.

All paste photos of fired clay tiles were taken on a fresh break, at 50x magnification.

YCS_283



Landowner has dug trench in N side of field to control drainage. Profile of pit wall shows 1.25 m of brown sand with occasional, cobble-sized patches of sandy clay. Sample collected from 2 sandy clay patches 40-60 cm from present surface.



Red sandy clay with evenly-sized feldspar and mica sand inclusions. Clay component is sticky and stains hands. Does not ribbon or shape well.

YCS_288



30 cm deposit of red, sandy clay 20 cm beneath present surface in roadcut next to field just South and downhill from Mound 6.

Red sandy clay. Sands are evenly sized and well-sorted but angular. Visible light and dark sands that are probably feldspar and biotite. Clay component is sticky and stains hands.



YCS_289



Roadcut next to field in piedmont a couple km N of Yaasuchi. Roadcut is about 100 m long and up to 1 m deep, exposing red sandy clay derived from micaceous gneiss. Sample taken 35 cm from surface.

Red sandy clay with angular feldspar inclusions of consistent size (sand-size particles). Clay content is still high. Clay is plastic and workable.

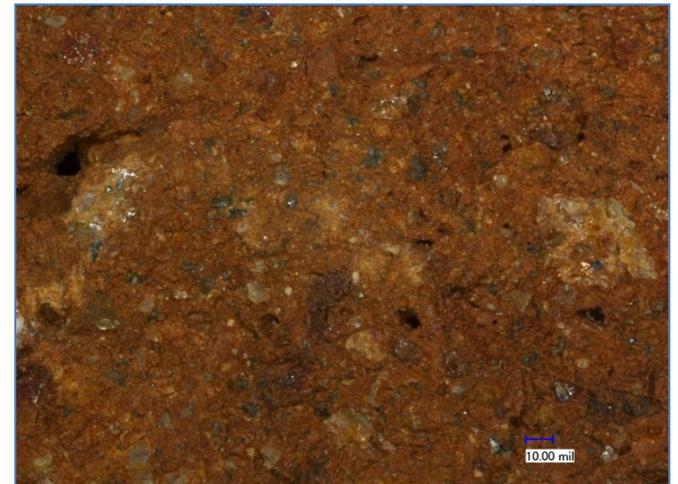


YCS_290



North of north ridge of the site of Yaasuchi. Most soils in this area are too shallow or sandy, but a cut in the toe-slope of hill next to a field shows fair soil development, including a bed of fine red clay 20 – 30 cm deep. Bedrock at 40 cm.

Red sandy clay. Wet when tiles were formed, resulting in surface texture. Sand lends it a masa-like texture. Sands are well-sorted and include black particles, probably biotite. Clay component is sticky and stains hands.



YCS_294

Next to road crossing riparian area bisecting *barro negro* deposit in field 0.5 km SW of Yaasuchi.

Used augur to sample:

0-6" – micaceous clay loam;

6-12" – (Sample A) micaceous dark brown clay;

12-18" – (Sample B) micaceous dark brown to black clay;

18-24" – (Sample C) same, more sand;

24-30" – same, sand increases to 20-30%.



294A Generally fine, dark brown clay with small amount of pebble to gravel-sized inclusions. These are angular and of mixed mineralogy. Clay is very clean; plastic and workable.



294B Very similar to 294C: dark brown with a variety of sand to pebble-sized inclusions (larger than in 294C).



294C Dark brown clay with range of sand to pebble-size inclusions of multiple materials including feldspar, quartz and mica. Also a fair amount of organic matter. Still highly plastic and easily shaped.

YCS_308



In *barro negro* deposit on N side of stream.
Augered to 30", revealing clean, dark brown to black clay throughout.

Sample A – collected from depth of 6-18";

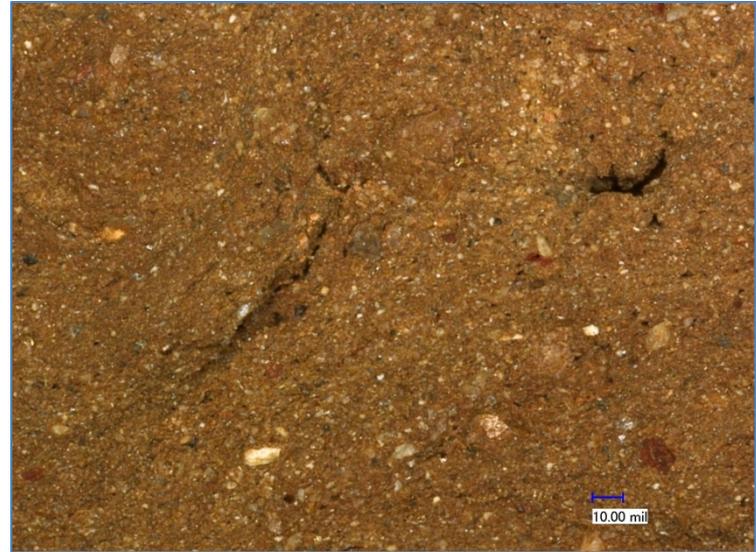
Sample B – collected from depth of 18-30".

Auguring conducted at 6" intervals from surface. Hand samples from each level shown below.

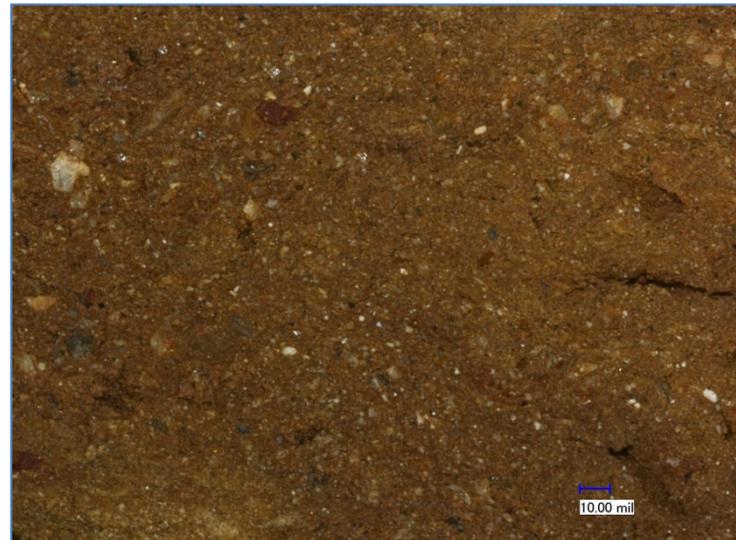


YCS_308

308A *Very fine, dark brown clay with no inclusions and some mica content. This clay is very clean, plastic and workable.*



308B *Very fine dark brown to black clay with very low inclusions. Micaceous visible on surface of tiles. Shapes well and ribbons well, but cracks on edges while making tiles.*



YCS_309



In *barro negro* deposit on N side of stream.

Sample A – collected from depth of 6-12”;
Sample B – collected from depth of 24-30”.
Clay was significantly sandier from 10-24”.

Auguring conducted at 6” intervals from surface. Hand samples from each level shown below.



YCS_309

309A Dark brown, fine textured clay with a fair amount of sand to pebble-sized feldspathoid inclusions. Also some mica visible on the surface. Highly plastic; not too sticky and easily worked.



309B Sample overly dry when tiles were made. Dark brown, fine textured clay with few inclusions. Cracks on edge of tiles. Organic matter in the form of fibrous roots.



YCS_310

In *barro negro* deposit on N side of stream.



0-6" – sandy clay;

6-12" – sandy clay (Sample A);

12-18" – sandy loam;

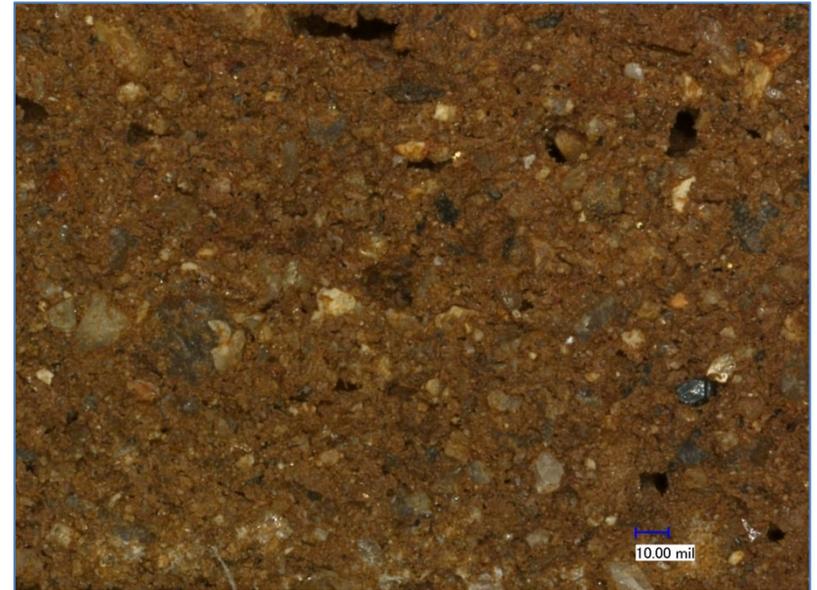
18-30" – dark brown to black clay (Sample B).

Auguring conducted at 6" intervals from surface. Hand samples from each level shown below.

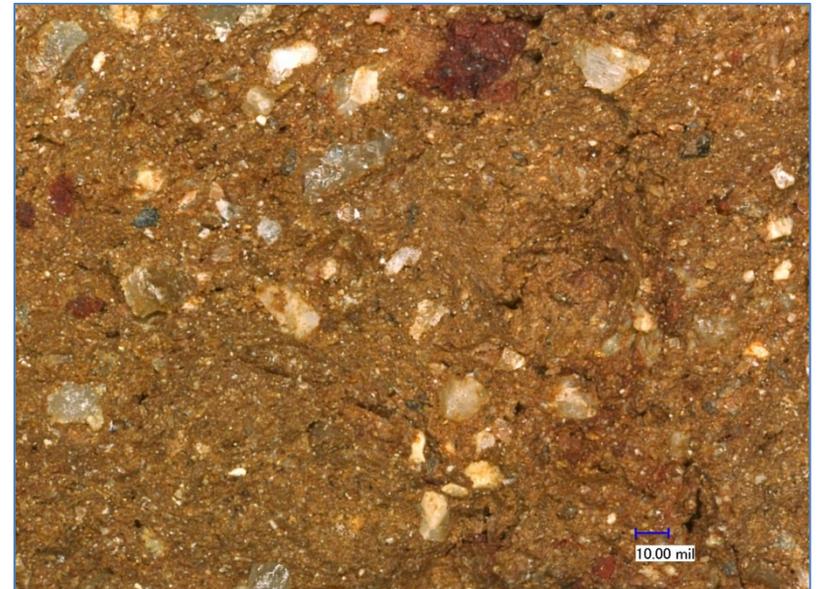


YCS_310

310A *Dark brown, sandy clay, with evenly sized feldspar and mica sand inclusions. Still fairly high in clay. Ribbons OK and shapes fine.*



310B *Dark brown, fine textured clay with few inclusions. Highly plastic and shapes well. Less stiff than other clays. May have better water content, but may also have a higher proportion of silt.*



YCS_320

Across road South of field with *barro negro* deposit. Chunks of clay churned up by tractor on the surface.



0-6" – sand

6-12" – sandy clay

12-18" – gravelly, sandy clay

18-30" – pure *barro negro*. Sample taken from this level.

320 Fine textured, black clay with no inclusions. High clay content but stiff, probably due to low water. Shapes well, stamps well.

Auguring conducted at 6" intervals from surface. Hand samples from each level shown below.



YCS_321

30 m South of YCS_320. Chunks of clay churned up by tractor on the surface.

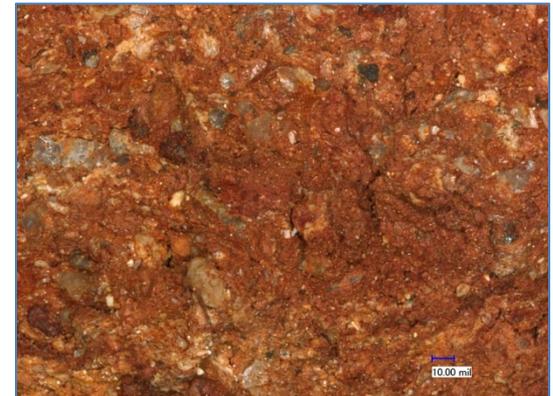


0-6" – sandy brown topsoil;

6-12" – orange sandy loam;

12-18" – mottled white and orange sandy clay;

18-30" – mottled white, orange, and brown sandy clay;
sample collected from this level.



Mottled yellow-orange clay with light yellow phases. Some sand content, but no large mineral inclusions. Fairly dry when tiles were formed but seems like it would have good plasticity is adequately wetted. Stains hand orange.

YCS_334

A few m South of main *barro negro* deposit.



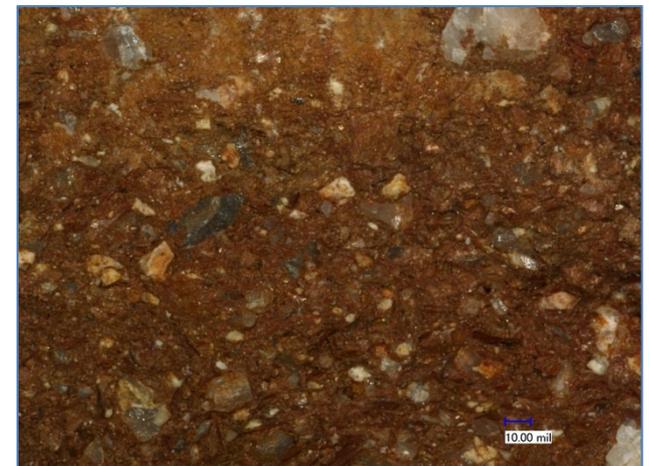
0-6" – loamy topsoil;

6-30" – micaceous regolith.

Sample collected from depth of 6-18".

Very micaceous clay-rich regolith. Difficult to form into tiles. Clay component is yellow and sticky. Inclusions include feldspar and micas, evenly sized and angular.

Auguring conducted at 6" intervals from surface. Hand samples from each level shown below.



YCS_336

Main *barro negro* deposit South of stream.



0-9" – gravely *barro negro* (Sample A);

9-26" – sandy *barro negro* (Sample B);

26-30" – alluvial sands.

Auguring conducted at 6" intervals from surface. Hand samples from each level shown below.



YCS_336

336A *Fine textured, black clay with light amount of angular feldspar inclusions – sand-sized. Tiles may have less inclusions than rest of sample. Highly plastic and easily worked otherwise.*



336B *Medium textured, dark brown to black clay. Moderately sandy. Sands are even-sized feldspars and micas, but there are also pebble-sized angular feldspar inclusions. Workability difficult to judge because tiles were made while sample was too wet.*



YCS_337

Main *barro negro* deposit South of stream.



0-12" – pure *barro negro* (Sample A);

12-18" – *barro negro* with small amount of sandy inclusions (Sample B);

18-30" – *barro negro* with 15-20% sand (Sample C).

Auguring conducted at 6" intervals from surface. Hand samples from each level shown below.



YCS_337

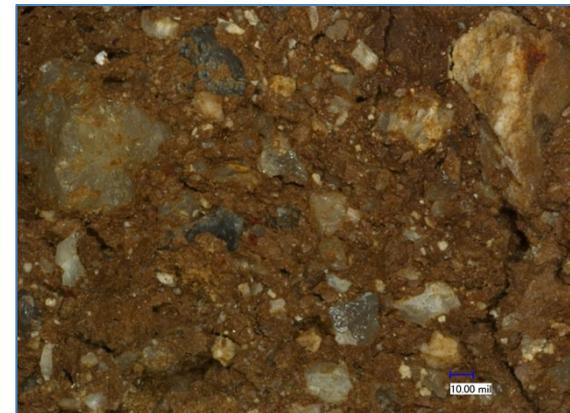
337A *Dark brown to black clay with a moderate amount of sand to pebble sized inclusions. Easily worked when wet.*



337B *Very fine textured, black clay with very few inclusions. Highly plastic; shapes well.*



337C *Dark-brown to black sandy clay. Difficult to discern composition of sandy component. Clay component is sticky and stains hands. Clay too wet during tile formation, resulting in tacky surface texture.*



YCS_338

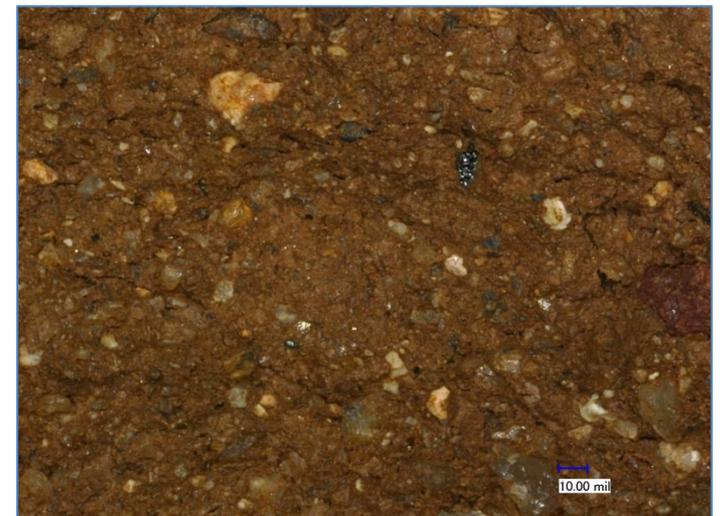
Main *barro negro* deposit South of stream.



0-6" – pure *barro negro*; sample collected from this level.

6-30" – dark brown sandy clay; sand increases to 20% near 30 cm.

Slightly loamy dark brown clay with small amount of sand to pebble-sized inclusions; these are generally sub-angular and of mixed mineralogy. Clay is otherwise clean, plastic, and workable.



YCS_342



Six inches of dark brown sand over 8-9" of *barro negro* over 2.5' of dark brown sand.

Sample collected from second strata.



Dark brown clay with a high amount of inclusions of a variety of materials. Inclusions are poorly sorted sand to gravel sized, angular quartz and feldspar. Mica visible in surface of tiles. Matrix is high in clay, but loamier than other samples. Tiles difficult to form due to gravel.

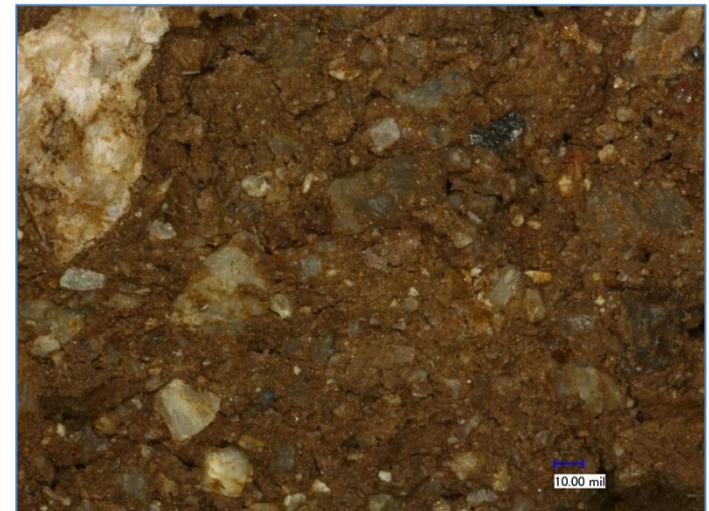
YCS_344

Cut bank on South side of main *barro negro* deposit.



Barro negro with white, gravel-sized inclusions that break apart to sand. Similar to coarser samples collected by augur from main deposit.

344 *Dark brown to black sandy clay with a variety of inclusion types. These are generally angular and include feldspar. Does not form extended ribbons due to sand. Still easy to work, but sticky.*



YCS_346

No Site Photo Available

Short, 12 inch cut-bank on edge of field on south side of main *barro negro* deposit. Collected sample of relatively clean *barro negro* 6-12" from cut-bank surface.



346 *Dark brown, loamy clay with no obvious inclusions. Sticky, but this may be due to moisture content. Moderately plastic and workable.*

YCS_348



2.5 m road-cut through piedmont 1.5 km North of Yaasuchi.

18" of gravel and cobbles over 20" of dark red clay (Sample A) over 30 to 40" of sands and gravels. Road slopes NW at about a 4% grade.

7 m uphill is a 6-8" exposure of yellow clay extending beneath the road surface (Sample B).

YCS_348

348A *Dark red, very stiff. Medium-fine textured clay with fine to medium angular feldspar inclusions. Leaves red stain on hands while working. Tiles are slightly cracked at the edges before firing; clay seems dry and could soak up a bit more water. Highly plastic –fairly high clay content.*



348B *Fine red clay with very few inclusions. Those inclusions that are present are sand-sized angular feldspar particles. Clean, perhaps fat. Ribbons and shapes well.*

