A Unique Method of Making Pottery —

Santa Apolonia, Guatemala

In 1951 while Charles and Margaret Arrott were engaged in restoring a Spanish Colonial house in Antigua, Guatemala, Dr. Alfred V. Kidder suggested that they make a study of present-day handmade pottery of the Guatemalan Indians. Charles Arrott was interested in pottery making and knowledgeable concerning clays; his wife, Margaret, had done ethnological field work under the auspices of the University of New Mexico and photography with the American Women’s Volunteer Services in New York. This combination of interests formed an ideal background for pursuing such a study. Accordingly, they were placed on the staff of the Museo de Antropología e Historia de Guatemala and during the next three years they studied the techniques employed in numerous villages, no two of which were exactly alike.

Margaret Arrott

From long before dawn on Thursday mornings the narrow dirt road leading from San José Poaquil through Santa Apolonia to Tecpán becomes a busy, purposeful thoroughfare. Many hundreds of Cakchiquel-speaking Indians, men, women and children, move down upon it from the deeper darkness of the mountains on either side. All carry enormous cargoes on their heads, on their backs, even to the frail little boys of seven and nine. In family units, two, three or five at a time, they add themselves along the way to the numbers of shadowy beings already moving forward. Soon, in the vague light, a trickle of people becomes a dark stream. All cargoes, all people on the road, are headed for the great open-air Thursday market at Tecpán. They move along in strained silence, at a swift, short-paced, rhythmic glide. With the distance great and time so precious it is as if they must not walk, yet dare not run.
Tecpán, on Thursdays, becomes the colorful distributing center for a large number and varied assortment of native handicrafts which are produced throughout the extensive adjacent area. Notable among these products, both in point of attractiveness and excellence of workmanship, is the vigorous, unglazed earthenware made at Santa Apolonia and in the narrow valley beyond. But notable beyond the product itself is the technique of forming such vessels. In most Guatemalan villages, some variation of the coil method is used. In Santa Apolonia the method is utterly different.

Let us assume that a woman potter of Santa Apolonia, using this "massive doughnut" method, is about to make an average olla (a rounded, wide-mouthed crock) of approximately thirteen inches in height by twelve in width, capable of holding eight to ten gallons of mash.

As elsewhere throughout Guatemala, the potters of the Santa Apolonia district do not seek the additional plasticity to be induced in raw clay through "weathering"; rather, the addition of water renders it sufficiently plastic for their needs. So, as it comes from the clay beds in the lumps of varying size, it is sun-dried for a day and broken down into uniformly small nuggets, which are then placed in a metate (the largest-sized water jar) and covered with water. By the following day the clay has become a heavy, sticky mass. In this condition the required amount (twelve to fourteen pounds for an olla of this size) is taken and placed, for kneading, on the hard, bare earth, which meantime has been swept clean and heavily sprinkled with dry, powdered clay. The heavy, laborious task of kneading the clay then follows, and proceeds until at last the clay has achieved a fine uniformity of ready pliability and by absorption of the dry powder its moisture content has been reduced to a degree suitable for working. This water content, it should be pointed out, is extremely high; the condition of the clay is scarcely firmer than that of well-kneaded dough.

The potter now forms the clay into a rounded column, six to eight inches high, eight to ten in diameter, into the center of which she plunges her right hand and, getting to her feet, mades it, by rotation into a cumbrous ring or doughnut, with a hole six to eight inches in diameter in the center. This ring she then places upon the hard earth, at a spot selected for its even surface, which has likewise been swept clean and prepared with dry powdered clay. She then straightens the walls and adjusts the vessel to uniform diameter, by rotary pushing from inside the center hole, until it is the desired size, with due allowance for shrinkage of the clay as it dries and is fired.

At this point she is still upon her feet, and now, stooping, she begins slowly to move backwards in circular, clockwise fashion around the clay ring, supporting the outer wall with her right hand while the four fingers of the left are plunged into the soft clay of the interior at about two inches from the bottom; her fingers proceed, gently but with great firmness, to drag upward the soft clay so caught, to form a steadily rising rim. In this action no attempt is made to do more than leave a certain amount of clay undisturbed at the bottom of the cylinder sufficient to complete the bottom half when the upper is finished, dried and reversed, and to thin and raise the walls uniformly from the inside. The shaping and refinement of the walls follows immediately after, once two or three broad arcs of dragging the clay upward are accomplished. And from here on it is the right hand which does the work while the left acts to support the wall from the inside. Always the woman potter continues backwards on her circular clockwise course. The vessel remains stationary, and herself becomes the wheel, a marvel of sure-footedness at a time when the slightest false step might well result in ruin.

It is the flat edge of the right palm which is here employed. The process is still one of dragging and the drag is diagonally upward to bring the clay to form a ruffled collar around the open orifice. This collar, it would appear, is casually made but is nonetheless the work of a thoroughly experienced eye-controlled hand, circumscribing the orifice as it does, effortlessly and at all points almost exactly equidistant from the base. Meantime and simultaneously, the left hand has been actively at work on the inside, for it is the left, while following and supporting the wall as the right drags diagonally upward, that does the shaping. For a time, this shaping is scarcely perceptible and only as the potter is completing her third or fourth circuit does it appear, when it seems suddenly to have taken place. For the observant onlooker there is in this point a moment of delight for, of an instant it would seem and from nowhere, there has suddenly been created a masterpiece of beautifully curved, hemispherical regularity. One marvels at its precise contours, which could not be surpassed on the potter's wheel, and realizes in that moment that Guatemalan and the world will have lost much when, in the not distant future, master craftsmen such as these baroofed women of Santa Apolonia have passed from the scene.

Finishing the surface of this top half and modelling a collar to the orifice now proceed rapidly, with the aid of that highly versatile implements of native life, the corncob. With the potter moving backwards, the cob is rolled with gentle pressure diagonally upward from the heel of her right hand to her finger tips, leaving upon the surface of the soft clay the imprint of its rough pocked texture. Her left hand is meanwhile busy locating inequalities of thickness in the walls and moving soft clay about to take care of them. With this done the corncob is replaced by a smooth, short, rounded stick of about an inch and a quarter in diameter, which is similarly rolled over the surface. The pokemarks disappear, the surface becomes smooth, but it is smoother yet a moment later when, with wet hands and fingers, the potter passes her hands gently over the entire body. And finally the surface takes on a glistening brightness as a folded piece of wet cloth, held flat in the palm of her hand, is passed over and around it. There follows next the modelling of the collar.

This operation very closely approximates the method of the modern potter who uses the wheel, except that the pot remains stationary and it is the woman who revolves around it. Enclosing the pliable clay gathered at the orifice within the fold of a wet cloth or leaf held between thumb and fingers of the right hand, she now moves round and round with considerable rapidity and the wet clay responds to her touch. With a few revolutions the form of the collar is definite and good. But in this matter of the form of the collar the women of Santa Apolonia are neither sluggish nor easily satisfied. Good is not enough; the collar must be
perfect, with precisely fixed curve of lip and of exact uniformity of height. And so, from time to time as she works, the woman potter will stand off from the vessel, survey the collar and lip critically, return to it, pluck a bit of clay from here and put it there, and proceed again to model the whole further, moving backwards round and round and round. When at last she is satisfied as she stands off in final survey, the result most obviously justifies her meticulous work. Nowhere in Guatemala do the women potters go to greater pains to turn out good work than at Santa Apodonia.

So far, a half hour's labor has gone into the pot's making and at this stage what may be called the first half of the task is done. The vessel, its upper half, that is, is now left for an hour and a half or longer to sun-dry to a point where the clay has become firm but not yet stiff. And while it is drying the woman potter goes on to make a second, a third, a fourth vessel. From time to time as she works she takes time to touch and test the drying clay of these accumulating pots; if her reliable fingers tell her that any one of them has reached a desirable point of firmness and she is not yet ready to begin work on its lower half, she will cover the vessel with green leaves or a spare damp cloth to protect it from the rays of the sun. Eventually she will have done with the forming of additional vessels, will approach one of the semi-dry upper halves, gently take it in hand, reverse it, and place it over so gently, mouth downward, upon the earth where its point of contact is the perimeter of the recently formed collar. This manipulation is as deft a bit of handling of an easily distorted material as one will ever see; there is firmness to the clay of the vessel so handled, to be sure, but not such as to take abuse, a condition which also is to be borne constantly in mind by the potter as she forms the upturned bottom half.

Now becomes visible the rough clay which was deliberately left at the bottom of the cylinder when first she began work. It is flat and creased from resting on the earth, with a six-inch hole in its center. But it has dried out scarcely at all, a fact which becomes obvious with her first touching of it; enclosed within this dark interior, it has not been touched by the rays of the sun and remains virtually as mallable as when the "doughnut" was first set upon the ground.

Thrusting her left hand through the aperture so as to support the heavy clay from within, the potter now proceeds to form the walls of this bottom half, just as she molded those of the upper, now inverted, portion. Again a perfection of hemispheric regularity is quickly indicated which leads, however, to an odd confrontation: what is to be done about the aperture through which her left hand is thrust, the hole now at the top of the inverted bottom which is all that remains of the original doughnut? How to close it in, yet extract the hand, which obviously must be done?
lost. Therefore it is removed, for it cannot be allowed to remain. With its removal, and when the tinales is turned upside-down, the mentioned departure in technique ensues. Two great coils of clay, each six to eight inches in diameter and of half the circumference in length, are placed upon and wedged into the clay of the temporary rim, which now sits log and the vessel stands inverted upon its collar. Even so, one marvels that the but-partially-dried walls can support so great a weight. But the woman potter appears in no way alarmed and from this point onward the manner of working the clay coils upward to form walls for the bottom half is identical to that used in modelling this part of smaller vessels.

The number of vessels produced by a woman potter in a day in Santa Apolonia is, as elsewhere in Guatemala, highly variable, depending very much upon the circumstances of the individual. She may be married to a woodcutter or to a worker in the cal (lime) industry up the valley, with their dependents few, in which case her contribution to the weekly family income would be a factor of less than major importance. On the other hand, she may be a widow with many mouths to feed, or she may be an unmarried mother. Some will be content with producing three or four pots, others have reason to turn out five or six of average size, or two tinales. The number of vessels is of less importance to the worker than the amount of gross weekly return. The expectation of a serious worker is of about three dollars, and with her schedule adjusted to that end one individual may decide on a given day to make only small apastes and a few brazares, while another may concentrate on medium to large-sized ollas or tinales. Of these last, the output in the district is necessarily light, for the work involved in preparing and handling such heavy masses of clay taxes to the extreme the frail physique of most of these women. Higher prices compensate for the lower output of the larger sizes. But, in general, weekly outputs of all kinds are lower than might be expected. No work is done on Sundays, Thursdays are market days in Teopan, and at least one full day a week must be given over to the gathering of fuel and the fetching of clay from the beds. An average weekly firing on the part of a worker dependent upon her own labor for her livelihood will consist of twenty to twenty-five vessels of various forms and sizes, including two or three comales. Most of the women in Santa Apolonia are adept in creating a wide number of forms and prefer to vary their
Expedition

At the foot of a mountain chain which rises to peaks of over ten thousand feet, Santa Apolonia lies at a 7500-foot elevation on the edge of the broad, wind-swept plateau of Tecul. Strong currents of air and sudden gusts of wind sweep and play upon it frantically and without warning. To avoid this hazard the firing of pots usually takes place in the early dawn or early evening. But even so the hour gives no great assurance that capricious winds will not proceed upon the hearth, lift upwards its burning or glowing-bunch grass and immerse the hot vessels for an instant in a dangerous bath of cold air. With the lighting of the fire there follows an hour when only vigilance and swift counteraction can be relied on to thwart the possible, indeed very probable, disaster which a chance wind may carry.

Fires at Santa Apolonia, as previously said, are usually of oak as the basic fuel. Branches of a fir vaccine are broken into more or less uniform lengths and laid to form a cross-knot bed six to eight inches deep. The vessels are stacked upon this bed, seldom in more than two tiers, the top vessels resting directly upon those below. Comalitos, if included, are usually placed on edge to lean inward against the stack but occasionally will be seen placed flat, face upward, at the outer edges. When the pots are at last satisfactorily arranged and all is in readiness, live coals are scattered through the crevices between the vessels to fall through and quickly ignite the small dry oak below. From a rather slow beginning the fire then mounts upward. As the flames rise to above the top vessels, the stack is swiftly covered with quantities of bunch-grass, distributed so as to give a deep and uniform coverage. In a few moments the fire bursts through the grass and the stack becomes a mass of flame. During the first stage, a green fire, the swift and hot-firing bunch-grass is replenished liberally; thereafter it is allowed to burn to a deep, nearly weightless  and charring covering of ash. As it is at this precise point that a gust of wind is most to be feared. As already mentioned such a fire attains about 1350 degrees of heat. Fahrenheit. Through addition and replenishment of bunch-grass it holds this heat at a fairly steady level for another half-hour. At the end of this time, with no further additions of fuel, the fire is allowed to die down. When all that remains above is a fine gray ash, yet well before the pots have cooled, the woman potter lifts them from the ashes, one by one, using a long pole for the purpose. Then she completes the decorative treatment, one treatment for those vessels which carry a slip, another for those which do not.

The slipped pots are first dusted thoroughly to rid the surface of clinging particles of ash. Then they are given a coating of agua de maza, a thin liquid derived from the mixing of lime and ground corn with water in the process of preparing a mash for making tortillas. The water quickly evaporates and the residue is rubbed to a high polish which enhances the “eye appeal” of the vessel. Pots which have not been slipped, on the other hand, immediately receive while still warm a fine spraying with lime water, flicked onto the surface by means of a small whisk made of henequen. The lime water has been prepared by mixing henequen (scraped from the ceiling of the chozas over the fireplace) with agua de mixtalam (which is the water left off in the left after maize has been soaked in cal) lime. The effect is corpus. Small rings formed of the carbon which was present but not visible on the surface of the vessel when it left the fire now appear, multitudinous and overlapping, each radiating from a center where a drop of lime water has struck. The women potter of Santa Apolonia finds this mottled pattern attractive, and since the native buyers in the market at Tecul seem to share in this enthusiasm it is of little importance that one of another race should at best remain neutral.
The more usual forms made at Santa Apolonia are the *tinajera*, the *tinaja*, the *olla*, the *apaste*, the *tamaler* (for cooking tamales), the *braser* (for burning charcoal), the *batidor* (for cooking beans) and the *comal*. The *braser* sits upon a low pedestal or foot which is formed by placing a ring of wet clay on the bottom of the inverted vessel when the clay has become leather-hard, thence modelling it precisely as with the collar of the *olla*. The larger-sized *comales* which may run up to twenty-four inches in diameter are deeper, less shallow, than the majority of those turned out in other pottery centers but are among the handsomest of the country. Sound craftsmanship in all of their forms, which indeed might well be called the hallmark of Santa Apolonia ware, is evident at a glance.

While up the valley from Santa Apolonia the women of the *aideas* and mountain sides turn out a *tinaja* of a pale, buff-firing clay which is reminiscent in form of the beautiful ovoid shapes made in Chinita, the general form of Santa Apolonia vessels as made in the village proper is globular. This makes for a sturdy, practical, utilitarian vessel, virile and honest to the core, and these virtues gain for them a wide distribution. From the Thursday market at Tecpán, whither as many as six to eight hundred may be transported in the early morning light, *mercantiles* carry them off in great numbers toward the southwest coast, and in lesser numbers to the Capital, to Antigua, to Chimaltenango, and to the many smaller towns and villages nearby.