

3701 Commonwealth Rd.

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Oct. 19, 1965

A.R. Products,
227 W. Whittier Blvd.,
P.O. Box 4312,
Whittier, Calif.

Order Dept.

Gentlemen:

Through contact with Pico Industries, art bronze dept., I find you can provide No. 74 Latex Molding Compound. I am anxious to obtain a gallon lot of this, which you may send and invoice me, or memo cost and carriage charge so I may send payment and then you may send in manner customary to you.

Do you also stock other sculptural supplies: Waxes, separators for casting, etc.? My needs are not extensive but I do have use for some materials occasionally.

Sincerely

Click Belander

3701 Commonwealth Ad.
XXXXXXXXXXXXXXXXXXXX

Oct. 19, 1965

Mr. Lynn A. Smith,
Picco Industries,
1729 North Chico Ave.
El Monte, Calif. 91733

Dear Lynn:

Enclosed "Notes on Bronze Casting." These have been prepared for the Grant County PUD, and are not intended for publication.

In a somewhat rambling manner I have attempted to give company executives, interested in this phase of the project, some insight into bronze casting, suggested future possibilities and brought them up to date on my experiences at the foundry.

I realize you are busy, but after scanning it you see fit to pass it on to Tom Papaleo it will be appreciated. And if for your own reasons you do not care to do so you may rely upon me to "forget it."

I have marked a couple of places for your especial attention, and will keep my eyes alert to 1, any extra voucher such as the name plates; and 2 will remind the PUD of your plaque department.

Many thanks again for your courtesies, and time.

Sincerely

Click Relander

Notes on ~~the fine art of~~ ^{with} bronze casting ^{Some explanation of the} ~~technical work involved~~ ^{bits of} history of this ancient art and personalities involved.

It is not generally ~~understood~~ ^{known} that when the Grant County PUD undertook ~~to have cast some art works~~ ^{the way was prepared to augment} casting into bronze of ~~some art works~~ ^{Warapum Dam} this provided the PUD with ~~works for~~ ^{hydro-electric} the Tourist Center (as individual in their field as the project ~~is in its~~ ^{Field.}

Both were unusual. Both are durable. ~~and~~ ^{IT} in undertaking this small art project it is again demonstrated what can be accomplished with planning ~~and~~ ^{Imagination to be different as well as practical}.

Persons associated with bronze casting, and they are not numerous, ^(in the West) other than ~~Picco Industries~~ ^{which is} know of no other plant capable of equipped for lost wax process bronze castings, ~~other than~~ ^{There are} a few individual artists, ~~who~~ ^{who} (because of necessity, have developed their own small melting pots to handle small works, ~~than Picco~~ ^{than} Industries, 1729 North Chico Ave., El Monte Calif. Lynn A. Smith, ~~who~~ ^{the} ~~is~~ ^{president of this precision casting plant is also} incidentally is president of the California Amateur Golf Association of some 88 clubs and up to 200,000 members, ~~is president of the industries.~~

Some background ^{about} on the ancient art will help ~~show why the project is~~ ^{may provide an expanded} unusual. ~~And if the quality of the works is substantiated,~~ ^{Normally} ~~with frequently~~ ^{an} an unknown element for artists, the Tourist Center will have wider recognition in compliment to the greater hydro-electric project, than can be immediately visualized.

The ancient art of ^B Bronze casting reached its highest perfection in the ~~cire perdue~~ ^{cire perdue} or Lost Wax Process. ~~However,~~ ^{the} Despite its antiquity, it was not until 1900 that this process was practiced in the United States other than ~~as an~~ ^{as} occasional experimentation. The art was brought to the East Coast by Old World craftsmen who came here with their family secrets, believing the U.S. knowledge of metallurgy and chemistry would ~~add~~ ^{them} in perfecting their art, ~~and in old world here the old world heritage of Enacting~~ ^{craftsmanship they were working for perfection.}

The art of bronze casting ~~only~~ ^{has not} recently found its way to the Pacific Coast except for the small individual caster or the ~~occasional and rare~~ ^{rare old world or Eastern} artist who attempted ~~this~~ ^a larger work himself. ~~Trained artist who knew lost and modeled a personal work.~~

Bronze casters were known before the day of the artist, Benvenuto Cellini's

These ^{unknown} ancient artists built up a core of brick and crushed plaster in the general shape of their subject. ^{They then} ~~Wax was then~~ fashioned ^{upon} onto this core, ^{shaping} and shaped ^{it to} in the desired form. This was covered with a mixture of clay and plaster, ^{when} and oven-dried, the wax ^{ran} ~~running~~ out of vent holes. The spaces left ~~were~~ ^{was} the negative mold.

Molten bronze was ~~then~~ poured into this mold. ^{After cooling} the exterior was broken off, ^{And the core picked out} The rough bronze surface, ^{gray} metallic in color, ^{was then} surface chased, patined and polished. ^{It was a hard work, a practice unchanged to this day} Only the one figure ^{was produced} ~~results~~ since the original figure ^{is} "lost" and the mold become ^{so} ~~chalky~~ and crumbly when subjected to the heat of molten metal.

Today, the craftsman prepares a negative, a gelatine or plaster mold, depending upon the fragility or complexity of the subject. Details of the model are reproduced as ^a negative or in reverse. ^{Wax does allow reproduction in the most exact detail, and comes into forms, stability, and strength} A wax coating is ~~then~~ applied to the mold, ^{negative} ~~never~~ thick, usually less than ^{Eighty} one-hundredth inch thick. This is a perfect replica of the model and can be handled, but gently. Knowledge of the wax, its melting, hardening and other ^{characteristics} ~~abilities~~ must be known by the artist, who is usually ^{develops} ~~capable of~~ developing his own personal type of wax, ^{adapted to his own craftsmanship}.

It is this hollow wax form which the artist ^{brings} touches up ^{or} and can with proper tools ~~work~~ out rare effects in detail, ^{bival} make corrections which become obvious at this stage. ^{not infrequently the artist spends more time in} Sometimes ~~more time is spent on~~ preparing a wax than ^{in modelling or carving the first original} ~~in making the original model or carving~~. ^(and is built up to a consistent thickness)

When the wax thin coat is complete to the satisfaction of the artist, ~~wax~~ rods (reclaimed wax processed to dimensions) are attached for ~~vents and~~ ^{crystalline} gates. A nearly clear type of micro-wax is used for ~~attachment~~ to make the binds. These must be placed at proper places on the shell, ^{the} ~~go~~ the pouring can be accomplished without trouble. ^{very plain} By this time the model, unless it ~~has been executed in simple form~~, has been ^{into sections} ~~cut or separated for separate castings~~. ^{sectionized and} the required number of casts, ^{made with Roman found} ~~have been~~ have been made. " "

The mold for pouring the molten metal is made from these gated and vented sections. This is accomplished through what is called "investment," or "investing" the piece. e

Two or three artists are required to "invest" each piece, depending upon its size, shape and other factors.

Each piece or section is dipped in a ^{like} creamy formula, ^{of which silica is probably a part,} then covered with a special kind of "sand." The piece is left to dry and then the "investment" process is repeated about 10 times, on various days. This process cannot be "rushed" except through use of controlled drying and very exacting room conditions and then are sometimes subject to encourage damage to the work.

The investment solution can resist temperatures of at least 2,300 degrees fh. When the mold is seasoned and properly dried or seasoned, it is oven heated at low temperature and the wax shell inside is melted out and is "lost." This process leaves a thin, hollow space inside the mold.

When the mold is properly positioned for a proper flow of metal to the various parts, molten bronze is poured through a key gate from which the wax has been melted. Proper balance and judgment for location of this pour hole is necessary to insure a clean pour.

Cooling does not take long and the bronze cast is removed, looking very much like dark iron. The investment cracks or crumbles easily at this stage.

The piece is then sandblasted. This is followed by chasing with special metal tools. The piece is placed in a sand-filled chasing table so delicate delineations will not be damaged. The blows of the chaser must be proper.

When the chasing and as necessary, burnishing is completed, the piece is ready for assembly, if piece cast, through welding. Then the seams are carefully obliterated.

In sectionizing the piece care has been ~~taken~~ taken so ^a seams are not left where their healing will be noticeable.

The finishing or patina, (color effect) depends upon the additional skill of the craftsman who uses a bunsen burner type of blow torch ^{to} heating the bronze, ^{to proper absorption temperature. the craftsman must know at what stage to} knowing when to relax the heat, ~~when the~~ brush on acids, or wash and stipple with cold water to insure against a too thick application. Coloration is checked much in the manner metal is tempered.

Sulphur, iron, copper, nitrite and copper sulfate are applied at 400 degrees. Nitrate provides ^{a near} ~~an almost~~ apple green, Brown ^{black} ~~provides~~ a darker green. ~~All of the~~ sulfides used can provide thousands of tones depending upon their usage, heat, length of heat, "tempering" and the craftsmanship of the artist.

Variations of apple green, ^{too} not light ^{and not too dark to be dark and counter} have been chosen for the patina, ~~and~~ the fountain shade will vary from the figures and heads.

The fountain centerpiece will weigh an estimated 250 to 350 pounds, exact measurements not being computed because of the spiral form, the ^{non-} ~~uniform~~ ^{Cylindrical} base, ^{protruding} ~~and the rough core designed to catch and arrest water~~ and the fish. There are nine fish, approximately 17 inches in length. Each was built around a separate armature to save extra clay and weighed four pounds. ^{Each fish is different. Uniformity would have made them mechanical. The space will be filled with 1 1/2 inch copper tubing & there will be a summit =} All will be hollow ~~except~~ ^{precise} ^{except} the two 18-inch figures. They too will be hollow except for a certain ~~amount~~ ^{part} at the bottom, feet and legs. ^{all} ~~they~~ will be fitted with a set bolt and a stop bolt to prevent turning. There will be ~~used to~~ Puck-Hyah-Toot's head, a full bust, will weigh about 65 pounds.

All metal casting shrinks about 1/16th of an inch to each foot.

Bronze is an alloy of copper, tin and zinc. Only small pieces can be cast solid. Larger pieces would warp or split ^{by} with the contraction ^{of} in cooling.

Iron is malleable by anvil and heat. A fractional addition of carbon added to iron converts it to steel.

~~At~~ bronze for casting ~~in progress~~ is commonly called 93-7. This is 90 per cent copper, 3 per cent tin and 7 per cent zinc.

This mixture liquifies at 1,750 degrees and is poured at 2,100 to 2,200 degrees. Steel is poured at 2,600 degrees.

Even in the 1940s a 15 inch plain figure, without cuts and welding, cost \$150 for the casting alone and extra for chasing and patina.

Peoples of the Aegean learned to use bronze in the second half of the third millennium B.C. and the art was lost during the Dark Ages. The Greeks re-discovered the art from Cyprus, Phoenicia and Egypt.

The origin of hollow casting is obscure, but was known by the middle of the 7th Century, B.C.

Bronze had a role in the culture of man.

First, ~~archaeologically known~~, there was the Stone Age, ^{supplanted by man's progress with} ~~this was followed by~~ the discovery of bronze, ~~and the Bronze Age~~ in which bronze weapons and figures gradually replaced stone, depending upon the advancement of man in a specific area. This did not take place throughout the world at a given time, because even now there exists on the earth regions of Stone Age and Bronze age culture.

The Iron Age followed.

Bronze work became a hereditary skill and ^{through the} ~~was practiced over a long time~~ in the pre-history of ~~man's~~ ^{era of man's}

Copper was used in Egypt a thousand years before it was known to Central and Western Europe. It was smelted in Crete and Cyprus at least 3,000 B.C. and bronze a little later. Since ^{tin} ~~time~~ is essential ^{an} ~~in~~ bronze the use was not widespread because of the rarity of large supplies of tin.

The Iron Age arrived at 1000 to 900 or 500 B.C. ^{abundant} ~~and~~ this more common ~~and~~ metal replaced the common use of bronze, ^{durability} ~~because of the rarity of tin,~~ But bronze, because of its beauty and other attributes, including traditions, was retained for making religious and ceremonial objects and consequently ~~for~~ ^{sculpture} ~~objects of art.~~

^{So} ~~Today bronze is better suited for certain purposes such as sculpture.~~ And today, the Bronze Age of art ^{after} ~~is~~ experiencing its beginnings in the New World, first in the East, ^{has advanced westward to the Pacific} ~~finally on the West Coast~~ ^{and} ~~an~~ example is being prepared for the Wanapum Dam Tourist Center.

like that of iron

The manufacture of bronze was unknown to the Indians of the Northwest, and to the Wanapum Band, ~~as was the manufacture of iron and they were~~ ^{who} in reality ~~emerging~~ ^{emerged} from the Stone Age into the Bronze and Iron Age when they were first visited by explorers and traders. ~~metal~~ ^{metal with desirable} ~~objects~~

The indigenous art of bronze work, so highly developed and so long perpetuated in Italy---although Venice had to go to Constantinople for the bronze gates of St. Marks Cathedral and Rome was compelled to acknowledge Byzantine supremacy in the bronze gates of S. Paolo in Germany,--was advanced by the craftsmen of Nuremberg, for a time a centre of art culture.

Germany foundries in the 12th century were pouring fonts and Cathedral doors for Europe.

There was one bronze worker of Nuremberg of special note in history yet little known by name although his works, now in museums are highly valuable.

He was called Peter Vischer, the grandson of Herman Vischer and his mark was two fishes. He is important because he embodies the transition from the Gothic to the Renaissance style in Germany.

There is something which must be akin to the atmosphere of the old bronze foundry, now re-born in the Picco Art Department. This extends far back to the days when the leather apron was the sign of the trade. These modern artists at ^{Picco} ~~firm~~ wear canvas aprons. And it was a high compliment when one of the artists offered an apron to (me) at the foundry.

There was the time, in the flowering of this art of bronze casting, when every trade had its special costume of distinction. These were the Guild days, when wages and holidays and the amount of work done were fixed by the Guilds. Boundaries were laid down between trades in the Middle Ages.

Among the bronze workers it was customary, as in other trades, that the trade remained in the family through generations, adding new secrets and abilities and processes.

It was the custom after an apprenticeship had been served for the worker to travel. This was called his Wanderjahre in German.

The A journey, which sometimes lasted for years, enabled the ^{Artist} man to draw ^{Exposure and} inspirations for his later periods of ~~art~~ ^{artistic activity}. *(my journey to Rome was such an exposure in a very small way)*

Hermann Vischer's eldest son, Peter, made ^a his journey ^{He went} to Rome and returned ^{after a year} with drawings and ideas. So it happened the Vischer bronze workers got themselves up to the worship ^{of the} and beauty ^{found in a} of the new form, and the eager copying of the antique. And so Peter Vischer finished his life, by adopting new ideas of a more delicate Italian art, discarding traditions in which he had been reared.

The full beauty of fountains in various forms was at its greatest in Italy and there were craftsmen ~~most~~ expert in fountain designs and in making medallions. *This kind of work infused the blood of later generations.*

Peter Vischer was admitted as a Master of his Guild in 1489, *the highest accomplishment a living artist could attain.*

~~Where~~ If the Guild existed today, rather than those few who follow its strict discipline of craftsmanship, Cataldo T. Papaleo, called simply craftsman at Picco, would be recognized as a Master Craftsman. *And only because of a super abundance of modernists has such recognition been allowed to lapse.* These artisans had a joy in their creations contrasted with a tradesman's small delight in a commission. They had deepened ~~their~~ their powers of sympathetic imagination. This was inherited from a time when religious emotion was afoot in the world. Any work inferior to the best was intolerable.

Papaleo, the master craftsman, comes to the bronze art department three days a week ~~and~~ presumably to supervise the work and take care of special casting and ~~finishing~~ finishing. But he is always at "work."

He comes from a family of artists, and came to the Pacific Coast to retire, and recover from a severe heart attack. But driven by his feeling for art and creative desire, he refuses to retire.

He attended Cooper's Union at New York and won a three-year art scholarship to Harvard by sculpturing Milton, the Blind Poet.

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in a country where ^{little} consideration has been given to art and its use. It is too easy for some today to catch the momentary fancy of a few big publicity and a gimmick - such as pop art - for ~~the~~ ^{to} too many self produced artists to ~~follow~~ ^{follow} the hard road of discipline which apprentices were required to do. and folk art is already fast going to junk piles.

was intolerable. Pappeo, the master craftsman, comes to the bronze art department three days a week and presumably to supervise the work and take care of special casting and finishing. But he is always at "work." He comes from a family of artists, and came to the Gallic Coast to retire, and recover from a severe heart attack. But driven by his feeling for art and creative desire, he refused to retire. He attended Cooper's Union at New York and won a three year art scholarship to Harvard by sculpturing Milton, the Blind Poet.

His work is now at Milton, Mass.

^{Papaleo's "master"}
His master at Harvard was Dr. Wolfson, who taught "anatomy, anatomy and anatomy," as the ~~basis of art and its foundation~~ ^{on which art is built}.
Papaleo ^{has been} ~~led~~ ^{and prolific creator} an active life as an artist, exhibitor, bronze caster and instructor. ^{A list} He ~~has~~ ^{he has completed would be longer} a long list of commissions, a few ~~only including~~ ^{are} Library of Congress, Smithsonian Institution, Arlington Cemetery, Veterans Administration, the late President Kennedy, Admiral Forrestal and Admiral "imitz trophies, St. Patrick's Cathedral, Temple Emanuel, commissions in the West; and his work is in the collections of the Kennedy family, Pope John VII, ~~at~~ ^{and} the Vatican, S.F. University Library, Lincoln Memorial Library, San Francisco College and elsewhere.

He has completed nine ^{medallions} of ^{the} 21 medallions ^{at California missions} for the missions of California and there are two sides, ^{or} ~~observe and reverse~~ ^{front and reverse} front and reverse. The final medallion of the set will ~~not~~ ^{be} finished ⁱⁿ 1970.

The ^{on each medallion} original wax, which permits detail work, is nine inches wide. ^{and they are executed with the 1/2 inch obverse and reverse sides are sculptured} The San Gabriel Mission medallion, for instance, reproduces the Indian mural in the mission ^{which contains} containing numerous figures.

A plaster cast is ^{struck from} made of the wax model ~~and~~ This is converted or reduced to a 1 5/8 inch coin quality ~~the~~ medallion from which a die is made. The cost up to this stage is \$800 to \$1,200. ^{at} ~~but~~ ^{cal} once the die is made, medallions, of pure silver or bronze may be struck from the die, year after year at a cost of from \$3.50 upward, depending upon the ~~type~~ kind of metal used. ^{For presentations, for} Branches of government, institutions and companies ^{anniversaries, furthering long held traditions} use frequently have medallions ^{made to present for high awards, or significant} When Papaleo sculpts a figure he ^{first} completes the work in the nude first, then, as needed, ~~thin~~ ^{put} covers it with clothing.

^{Putting} "When you build a house" he said "you have to build a frame before you ~~put~~ on the siding and shingles."

Besides three days a week at Picco he teaches art professors at Riverside College, ^{in techniques of sculptural} instructing them ~~how to sculpture~~ in materials ~~that~~

which can be cast
~~castable~~ most economically, ~~materials~~ for finishing and for proper effect ~~and~~
~~purpose~~

He will accept no pieces at the foundry he does not believe suitable, ~~and~~, nor up to his standard ^{They must serve a} if they will not serve their purpose ~~or as~~
^{well as} ~~be of value~~ to their creators.

He ~~arrives~~ ^{comes to} ~~early~~ at the studio ^{early} and demonstrates an acute ability to organize ~~work for~~ production, keeping various pieces moving through the ~~various~~ ^{individual} processes with expediency for timing, utilization of artists' time and talents, ~~and facilities of the department and the corresponding foundry facilities.~~

With glasses raised high on ^{a high} ~~his~~ forehead, he walks about rapidly in soft soled shoes. When he talks, he sometimes twists his mouth, for emphasis, ~~and~~ ^{there is no doubt about the points he emphasizes} ~~he~~ moves here and there, concentrating on an object which needs attention and later moving to another. ^{Pausing at} ~~at times he pauses~~ ^{he}, sizes up the project, ~~and~~ ^{works} out the problems in his mind and then ^{setting} ~~sets~~ to work or ^{putting} ~~puts~~ the artists at work according to their specific talents and abilities.

~~Papaleo~~ ^{Papaleo} ~~Rebukes to the fact~~ ^{he} ~~will~~ never be content until ^{he} can be an old master ^{we don't that, he says, said} he said. "I know I never can" ~~he hastily added~~. ^{He yearns to find time to make goblets} ~~and he would love to go back for a time~~ ^{an art form in which he has produced} ~~making goblets in silver and gold, and such works of fine art which he knows~~ ^{how to do} collectors ~~work~~ ^{the}

At lunch break time ~~and it is of short duration~~ he scrambles eggs and prepares a light meal on a stove at the rear of the studio assembly room. ^{on an assortment of discarded chairs} The art staff gathers ~~there~~ at a round table to eat and talk art, music, weekend activities. And Papaleo is always willing to explain some ~~fine~~ point of art. ^{to work the others are more than willing to listen} Then back to work, patina on one object, wax on another, ^{break 15 or 20 short duration} shellac on a plaster cast...it's not good enough to be bronzed... ^{Before leaving a Papaleo cutting for classes at Riverside College Papaleo} "Get shims, 40 feet for the fountain," and he gathered his helpers ~~about to explain~~

"Remember not to let them where I cannot reach ~~to~~ ^{with the} patina later... cast the fountain in rubber, ^{you must will have to} have you ordered the rubber?"

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...artists at work according to their specific talents and abilities.
...will never be content until a can be an old master," he says.

And the signal for a short lunch break

~~About Friday, when~~

a buzzer-bell announces the arrival of a ~~truck~~ small truck
caterer, ^{the truck is upon} ~~one of several~~ makes the rounds of the
Industrial district. The ~~truck~~ ^{mobile}
caterer brings ready made sandwiches, soft drinks, coffee &
pastries etc. the art staff buy their own lunch, and sometimes they
purchase the dwarf-size food dispensary. ~~The~~
Popular usually handles Eggs for his lunch, any
An ~~other~~ there on which a large copper pot is always
erected.

(Some materials, because of chemical composition, cannot be stored in large quantities) "you know casting plaster shelf kills if you keep it around too long, ~~and you can't take a chance...~~

"Now this fish," (and he demonstrated how to remove one from the fountain...) "see this ~~thin~~ ^{last} fin. You will ~~do~~ it like this. Press it close to the fish, so ~~Then~~ when it is in wax you lift the fin ~~up~~ to its original position like this...

"Make one mold here " ^{after directed} ~~directing~~ where to ^{Set} ~~put~~ shims for sections ~~"another~~ here and here, ... ^{Be careful with the} ~~set your~~ joints ~~this way~~ so they will hold..."

He ^{moved} ~~walked~~ to Puck-Hyah-oot's bust.

~~You will have~~ ^a no trouble here. But the hand will need ^{softening} ~~to be softened~~ when it is in the wax. It is already set for a Roman Joint."

Going to The Last Drummer ("I like this better than the Fisherman, ^{because} ~~this~~ says something ") ^{cut the right arm} you will cut ~~it~~ here, ^{cut the} right arm, and here, left arm, just above the drum", ^{scrutinizing} (after studying the drum arm from all angles, ~~for a~~ ~~brief time.~~)

Turning to the Fisherman... ^{"Remove} ~~Take~~ the spear ~~foot~~, and cut the braids here," ^{he} designated the precise distance and angle.

^{you should} "I want you to start these Monday. ^{It would not be good to} ~~they shouldn't~~ wait ~~any~~ longer because of the plastaline.

"Take the fish ^{off} ~~off~~ this way" he said, returning to the fountain.

"Don't make any of the cuts ^{when you remove the fish} the same. The armature is down to ^{about here / inside} ~~here~~ ~~on~~ all of them. Be sure the cuts are different so ~~that with the other~~ ^{Re-seating them properly} ~~markings~~ there can be no mistake in getting ~~them back to their right place.~~ ~~The fountain is going to be a beautiful piece, even without water. I~~

~~have never seen another design like it.~~

^{He stepped back} ~~He walked back from the fountain, and studied it again from all~~ ^{studying it} ~~quarters~~ ~~angles~~ and several distances.

^{bottom of} "The fountain should be at least 18 to 24 inches higher than ^{or even higher it should be high enough one seems} ~~the base of the floor. You~~ should look up to it. It looks large here ^{but put it outdoors and it will be smaller} ~~but it has to be in a raised position.~~

"And ^{if} more people pass ~~on~~ ^{on} one side than another, it should be viewed from about this angle or 'front.' You can see all the ~~fish~~ fish from here"

About metal:

"You don't take scrap metal and throw it into ^{sa} the smelting pot. When you sell bronze, ~~cases~~ the smelter asks you the type and then puts all of the same type on a pile. He melts it and removes the dross, ~~and~~ then to be sure ^{and the proper composition he} the ingots ^{each} are sound, makes chemical tests of ~~them~~. Otherwise some metal will break down. It ~~won't~~ won't mix with the rest, ~~and~~ the results ^{could} ~~be apt to~~ show anywhere in the cast, on the face, anywhere. ~~and~~ and ruin the cast work."

And so the Bronze Age is finally coming to the country that was, such a short time ago, Indian country, ~~that where~~ Here ~~it is~~, the explorers come, bringing their culture of the Iron Age. And in one long stride of a comparative few years ~~the~~ the Indians ~~also~~ stepped from their ~~stone age~~ culture of a Stone Age across the Bronze Age ~~to~~ to an age of Iron, ~~a~~ hydro-electric, and nuclear power. But the religious culture of these people is ~~thinner~~ And ~~longer~~ longer enduring ~~than~~ than Stone, bronze and Iron, ~~and~~ and it is unchanged except for some tampering by the heat of later-age cultures.

~~So~~ They might be called blood brothers to the salmon ~~the~~ whose age has ~~survived~~ Yet flows strong in the blood

3701 Commonwealth Rd.
XXXXXXXXXXXXXXXXXX

Oct. 20, 1965

Mr. Lynn A. Smith, president,
Picco Industries,
1729 North Chico Ave.,
El Monte, Calif., 91733

Dear Lynn:

It was thoughtful of you to send the information on the purchase order for the Grant County PUD. I had been told it was for \$3,720. As I recall, we figured \$595 additional to the casting estimates to take care of shipping, insurance etc. That made the figure quoted by phone \$3,570. I asked Park to include something extra to be sure and I note that this was apparently done, \$3,570 plus \$150 makes \$3,720, the amount of the purchase order. Am glad you think that is satisfactory.

Any incidental unexpecteds (you will note I have already made record of the possibility of the name plates) we will work out as such come up, but I am hopeful it can stay at the PO figure, that is the way PUD likes to do business. You could notify me of the charge, like for the name plates and I am sure Park would send you a voucher to fill out. But maybe none of this will be necessary. Keep me posted.

Allowing 1,200 for the fountain, 550 for the full bust, 325 for each of the three heads and 400 each for the figures, some over the original individual estimates, it gives a total of \$3,525 and a margin of \$195 to make up the \$3,720. I am only mentioning this to show it looks like you are ok.

Between us I am told that the "powers that be" have no objections to castings we discussed. I have a hankering, if one of The Drummer in bronze looks ok, I might exhibit it at Indianapolis at the Hoosier Saloon, for "native artists," and that the PUD understands, since it would be valuable to them in a way.

The draft, enclosed, is NOT, please included in any way with the PO, but it might help some toward materials in any additional work we talked about informally, and please accept it in that spirit.

Thanks for advising me that molding has started, and as there is occasion, let me know generally. The PUD likes to keep track on progress.

Am trying to line up a couple of boxes of Yakima apples (short crop here this year because of the freeze) but they should be coming along. One will be sent to you at the plant for your "home consumption." Another will be addressed to "Tom Papaleo and staff, Classic Bronze Department.

Sincere Regards

Click Relander