



ARCHITECTURE

EHLINGER & ASSOCIATES

SECOND QUARTER 1998

roman Amphitheater, Nîmes, France
www.ehl.com



ROMAN AMPHITHEATER Nîmes, France

Arena is a Latin word that means sand or beach, and was applied as a name to amphitheaters in Roman times because so much sand was used to soak up the blood of the amphitheater's combatants. The prefix *amphi* means all around, and when added to theater, connoted what was in reality two combined theaters.

Amphitheaters were used as assembly structures for the entertainment of the Roman populace with gladiatorial hand to hand combat (ostensibly for the training of warriors), man and beast combat (for rather sadistic entertainment), and in some instances they were used for naval combat exhibitions. Water pipes for flooding the central arena still exist.

This issue's limited edition signed print by Ladd Ehlinger is of the arena of Nîmes in southern France. This amphitheater is the best preserved of all the 60 surviving Roman amphitheaters, the most famous of which are: Rome (the Colosseum), Arles (very near Nîmes), Verona, Pompeii, and El-Djem (Thysdrus).

It was built in the reign of Augustus a few years BC to seat 21,000 spectators, the seats for which are all remarkably preserved. The slaves sat at the top, the ordinary folk in the middle seats and the upper classes at the bottom - the more upper, the more one was in the shade. The barrel vaults, groin vaults, and other stonework of this structure including the topmost consoles with holes for the awning poles are all there. The exterior

design expresses the vaulting of the elliptical plan (133M x 101M) with round arched arcades that are rhythmically articulated by pilasters between, square on the lower level and semicircular on the upper level, and cornices at the level's line.

Nîmes is an area that contains many famous Roman ruins: the Pont du Gard (a sketch in a previous newsletter), the Maison Carrée, Diana's Temple, the Castellum, and the Augustus Gate. Also, there are many Roman ruins at nearby Arles. The Pont du Gard was the aqueduct / bridge source of the water that was used in the naval exhibitions.

The Roman Latin name for Nîmes was Nemausus after the spirit of a local spring. It was founded by Augustus to reward his Legionnaires with land grants for their victory over his rival Marc Antony. Nîmes is in the present day region of Provence, and lies between the limestone hills of the Garrigue to the north and the alluvial plain of the Costière du Gard to the south.

Over the years, the amphitheater suffered: the Visigoths turned it into a fortress by blocking the arched openings with walls, building towers, and surrounding it with a moat. The Knights of the Arena held it for a while during the time of the Crusades, and at the end of the middle ages it became a village, occupied by some 2,000 people who built houses and a chapel within the ellipse itself by utilizing the stones of the amphitheater. When the 19th century rehabilitation began, a 25' deep layer of rubble had to be first removed.

VISIT OUR WEBSITE:

www.ehlinger.com (still under construction).

LAST CALL

Our clients that would like to have AutoCad R13 electronic files of their projects done by E&A since 1982 need to contact us right away for a quote to convert their Palette files to AutoCad.

E&A moved to its second generation CADD (Computer Aided Design and Drafting) system over two years ago. The newer system uses AutoCad R13 running on an IBM clone Pentium server with individual IBM clone Pentium workstations. The original system utilized CADD software called Palette, running on a DEC PDP 11/73 computer with four Tektronix workstations.

We had file conversion software written, and converted all of our data base of library symbols and completed details — some 50,000 elements. We did not however, convert the data files for individual projects because of the expense. The old system hasn't been run in a year and is taking up valuable space. It is going to be junked as of the 1st of August 1998 along with the project electronic files. After it is junked, these files can't be converted, so call now if you would like your data converted. You can email us at architect@ehlinger.com.

ABOUT PAINT

(Continued from 1st
Quarter 1998 E&A
Newsletter)

PAINT AS A COATING As mentioned previously, there are many types of coatings that can be used in building construction. There are also many considerations to be made in selecting a coating.

Remember that historically paint was primarily used for aesthetic purposes. The 19th Century saw developments in steel processing and alloys and an explosion of use of the material in construction (replacing iron as the previous metal of choice, as in bridges). This created a greater recognition of the use of coatings for exterior protective purposes.

It should be understood that paint as a coating is an excellent protective device, but it is not permanent, and eventually wears down against the elements depending upon many variables.

Any protective coating selected can

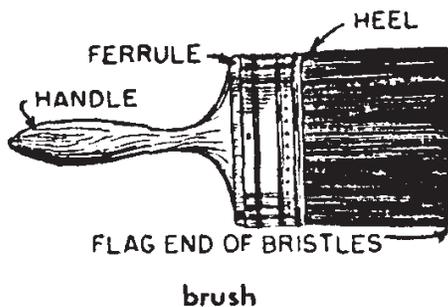
be affected by many variables including: availability, price, the nature of the particular building substrate (wood, concrete, metal, etc.), weather, humidity, odor, or the anticipated expected life of the coating.

COATING WOOD

PREPARING WOOD

All interior and exterior painting of wood should always be preceded by a proper cleaning of the bare surface regardless of whether or not the material is new or used.

Wood surfaces should be dry and clean, free of dirt, oil and grease. Remove loose, peeling, flaking old paint and feather back all rough paint edges to a smooth surface by sanding. Remove oil and grease and sap (often found on new wood) with paint thinner. Coat knots and resin-flow areas with a shellac or a quick drying primer-sealer. Use no. 3/0, 4/0, or 5/0 sandpaper to buff or remove a slick



or shiny existing surface. Always finish with a good thorough cloth wipe to the wood surface to be sure the surface is clean.

Exterior wood surfaces should be dry and clean, free of dirt, oil and grease. Remove dust and dirt by scrubbing, brushing, or hosing. Remove oil and grease using paint thinner.

Mildew must be removed and the surface thoroughly sterilized before painting. Commercially prepared mildew cleaning solutions are recommended. Most solutions are mixtures of bleach containing sodium hypochlorite; or trisodium phosphate or borax; or phenylphenol sodium salt; and a compatible detergent. Follow manufacturers directions. Protect adjacent anodized aluminum and other

metal surfaces as these cleansers are corrosives.

Allow the wood surface to dry completely, but plan to prime as soon as possible after drying and after spot priming knots, and patching and sanding of nail holes and imperfections. Caulk and seal after priming all wood.

PRIMERS FOR WOOD

Whether or not to use a primer depends upon the type of wood and the final coating chosen. The required application of primer for a stain coating may be different than is usual for paint and it is best to investigate more carefully the primer/stain coat relationship for each case of stain and wood desired.

For Example: A primer is always necessary when old or new wood is to receive a paint coating but care should be taken with redwood or cedar as these types of wood are prone to tannin or staining bleed through when coated with latex based paints. Special redwood and cedar treatment such as 2 coats of primer, or shellac may be required. Each manufacturer of paint has a recommended primer for wood, whether it is to be stained or painted.

COATING CHOICES FOR WOOD

There are numerous choices and prices for both interior and exterior use.

Alkyd (oil based) paints and stains use a formula which includes a thermoplastic synthetic alkyd resin vehicle, drying oil acids and alcohol so that the evaporation of solvent, and curing of the resin by oxidation makes for a durable coating for exterior and interior wood and most wood siding (plywood excluded).

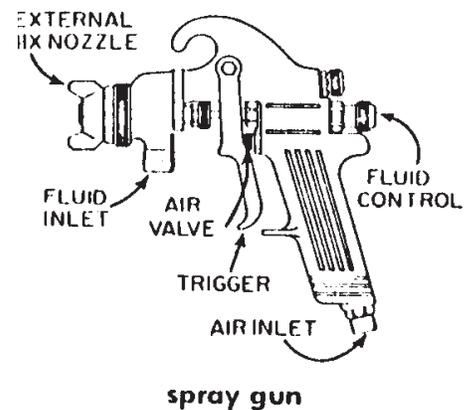
The alkyd paints and stains range in price from 7 to 28 cents per square foot depending upon the number of coats applied, the location of the application (ceilings, walls, doors), and the method of application (hand brushwork, roller, spray, etc.) They are available in all colors and clear and range from flat to gloss finish.

Latex paints are compositions of various synthetic resins (acrylic) and pigments in water with curing occurring with the evaporation of the water. Latex

paints are fairly durable and are easy to clean up and have lower levels of fumes than the oil based alkyd paints.

Acrylic and latex vehicles are recommended for wood trim and siding (including plywood) and certain flat solid color deck stains. The Latex paints are about 10% less expensive than the alkyd paints.

Polyurethane coatings are often used in semi-transparent stains and varnishes on siding (including plywood), trim, floors, and as a clear varnish in ranges of flat to gloss. They form hard coatings that are fairly chemical resistant and tough. Curing is by one of two



methods, moisture curing (dry by solvent evaporating) or by a copolymerization method (two mixtures co-reacting). Polyurethanes on wood are most often used as a varnish for trim and floors. They average in cost from 18 to 42 cents per sq. foot.

Coatings for other substrates will be addressed further in the next issue of E&A Architecture.