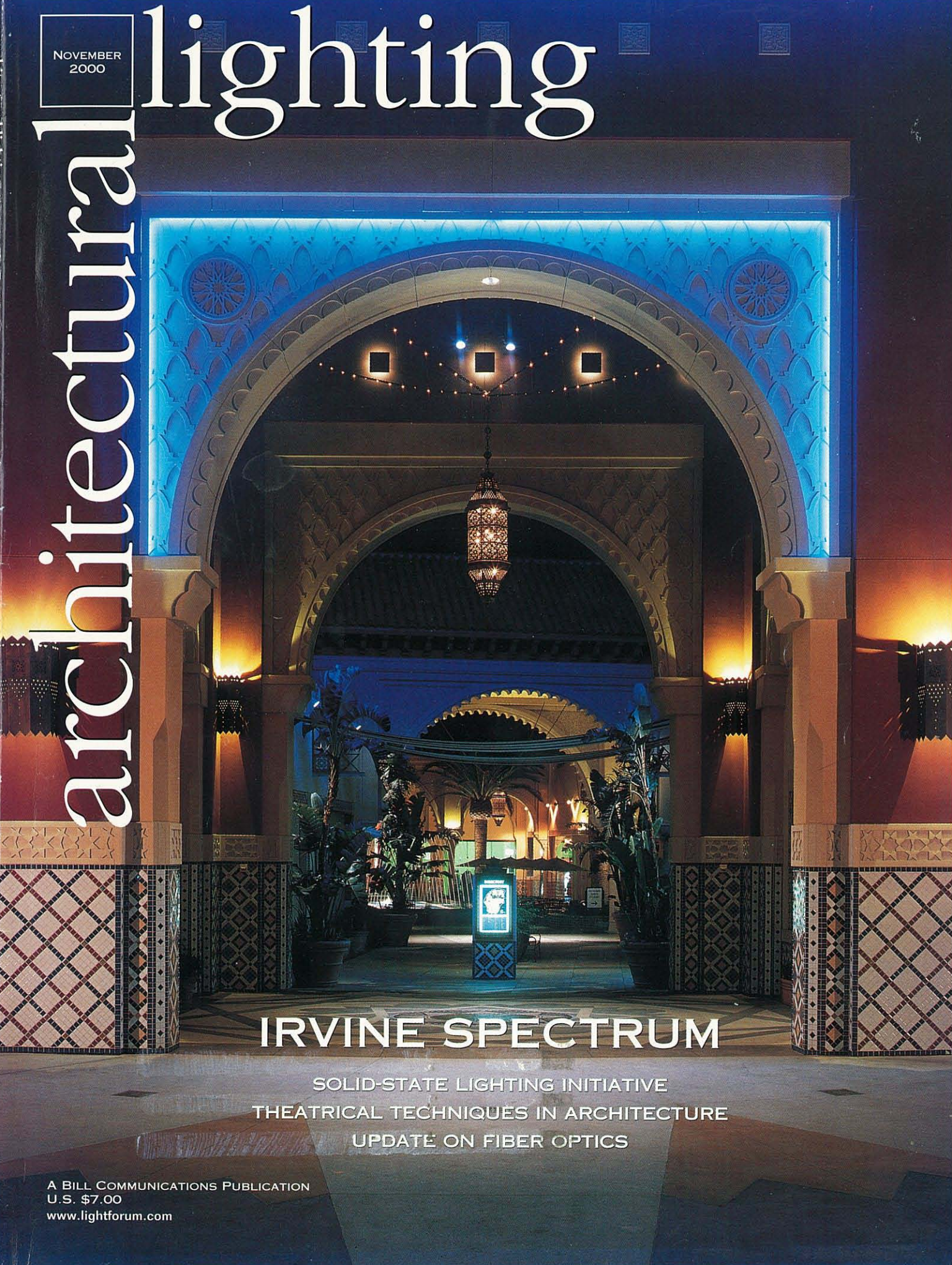


NOVEMBER
2000

architectural lighting



IRVINE SPECTRUM

SOLID-STATE LIGHTING INITIATIVE
THEATRICAL TECHNIQUES IN ARCHITECTURE
UPDATE ON FIBER OPTICS

A BILL COMMUNICATIONS PUBLICATION
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Full Spectrum

BLENDING MEDIEVAL DRAMA AND VIVID, COLORFUL LIGHTS, THIS EXPANSIVE ENTERTAINMENT COMPLEX OFFERS SOMETHING FOR EVERYONE

BY CHRISTINA TRAUTHWEIN, EDITOR-IN-CHIEF

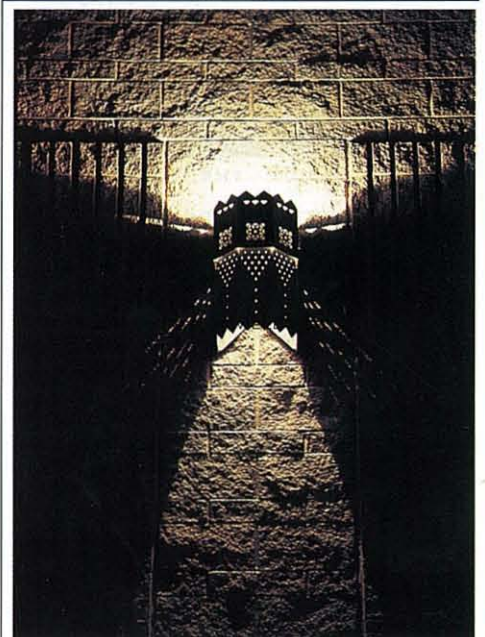
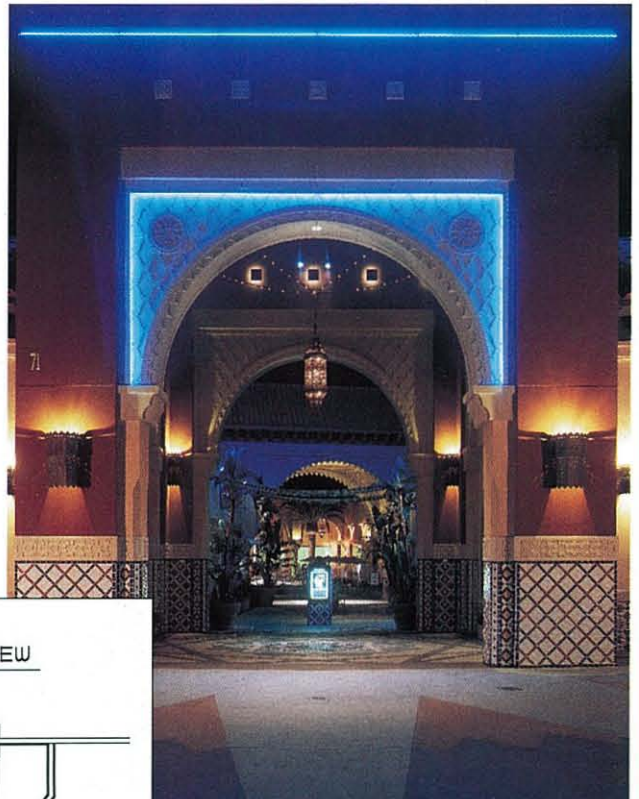
The Irvine Spectrum Entertainment Center in sunny southern California offers a complete range of activities that are intended to appeal to all visitors, whether child or adult. "It's more than a theater, more than a shopping center—it's a destination of fun," said lighting designer Andrew Powell of Lighting Design Alliance. "This rapidly expanding open-air venue includes shops, restaurants and clubs, providing nonstop entertainment that goes well past daylight hours to transform into a nightlife spot."

While Phase 1 of the project centers primarily around Islamic-inspired patterns and themes, Phase 2, though keeping some of these Middle-Eastern influences, focuses on a medieval motif. "Architecturally, this retail/entertainment center is based on the Alhambra in Granada, Spain," noted Powell. "While we've replicated many of the thematic design elements of the original structure, such as incorporating central courtyards into the overall plan, we've updated them to make Irvine Spectrum lively and entertaining."

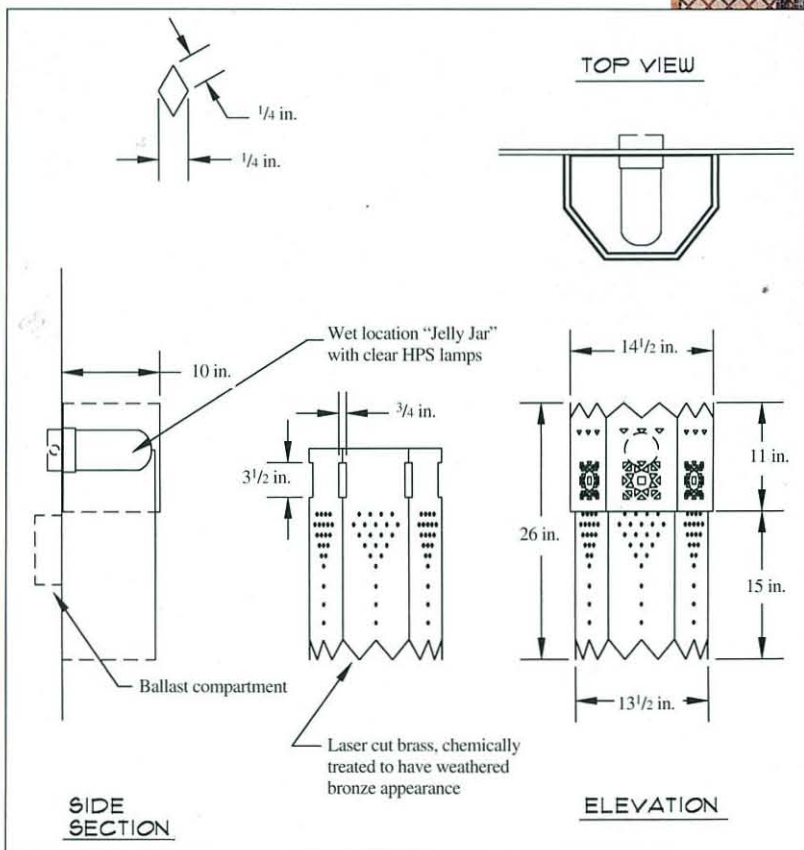
EXTERIOR FACADES (OPPOSITE), CONSTRUCTED OF SPLIT-FACED BLOCK, SURROUND THE CENTER AND REPRESENT THE "CITY WALL." GROUND-MOUNTED 100W HPS FLOODLIGHTS, CONCEALED IN THE LANDSCAPING, GRAZE THE WALL AND ACCENTUATE ITS COLOR AND ENHANCE THE TEXTURE; THEY ALSO PROVIDE A CONTRAST TO THE METAL HALIDE PARKING LOT LIGHTING. "THE GOLDEN COLOR OF THE SODIUM LAMPS COMPLEMENTS THE WARM TONES OF THE BUILDING MATERIAL," SAID POWELL. "IN FACT, THE EFFECT RESEMBLES TORCHLIGHT, WHICH, OF COURSE, UNDERSCORES THE MEDIEVAL IDEA."

TO EXPERIENCE THE EXCITEMENT WITHIN THE "CITY WALLS," PATRONS MUST ENTER THROUGH ONE OF SEVERAL ENTRY GATES (RIGHT). LARGE-SCALE CUSTOM-THEMED SCONCES (BELOW), DESIGNED BY POWELL IN COLLABORATION WITH THE ARCHITECT, FLANK THE ARCHWAY ENTRY; SMALLER VERSIONS ARE LOCATED IN THE COURTYARDS. "WE TRIED TO ENSURE THAT THE DEFINED THEME OR 'STORY LINE' WOULD BE REINFORCED BY THE LIGHTING, AND THAT, WHERE POSSIBLE, THE MATERIALS AND EFFECTS WOULD REPRESENT AUTHENTICITY," SAID POWELL. "HPS WAS CHOSEN FOR ITS FLAME-LIKE COLOR, LONG LIFE AND ENERGY EFFICIENCY IN LIEU OF TWO INCANDESCENT PAR38 LAMPS, WHICH IS WHAT'S GENERALLY USED IN UP/DOWN SCONCES OF THIS TYPE," EXPLAINED POWELL. THE SINGLE,

CLEAR HPS LAMP IS POSITIONED HIGH IN THE SHROUD TO PRODUCE A WELL-DEFINED BROAD SPREAD OF LIGHT UP AND NARROW SPREAD DOWN. A CUSTOM, CHAIN-SUSPENDED LANTERN ADDS SPARKLE TO THE ENTRY GATE. "WE ORIGINALLY SPECIFIED THE SOURCE AS INCANDESCENT," SAID POWELL, "AND THE FABRICATOR INFORMED US THAT, BECAUSE OF THE PERFORATIONS IN THE FIXTURE HOUSING, INCANDESCENT JELLY JARS WITH WET-LOCATION APPROVAL WERE REQUIRED."



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THINKING THAT THE SOLUTION SOUNDED "A BIT CLUNKY," POWELL CAME UP WITH THE IDEA OF USING FESTOON LIGHTS, WHICH ARE USED THROUGHOUT THE PROJECT IN THE COURTYARDS WHERE THEY ARE CHAIN-MOUNTED. "WE DESIGNED THE PENDANTS TO UTILIZE LONG-LIFE (25,000-HOUR) 24V XENON LAMPS," SAID POWELL. "THE LIGHTS ARE ATTACHED TO A LOW-VOLTAGE CABLE, SECURED IN A BUNDLE AND PLACED INSIDE THE FIXTURES." SEVERAL OF THESE PENDANTS ARE USED IN THE PROJECT.

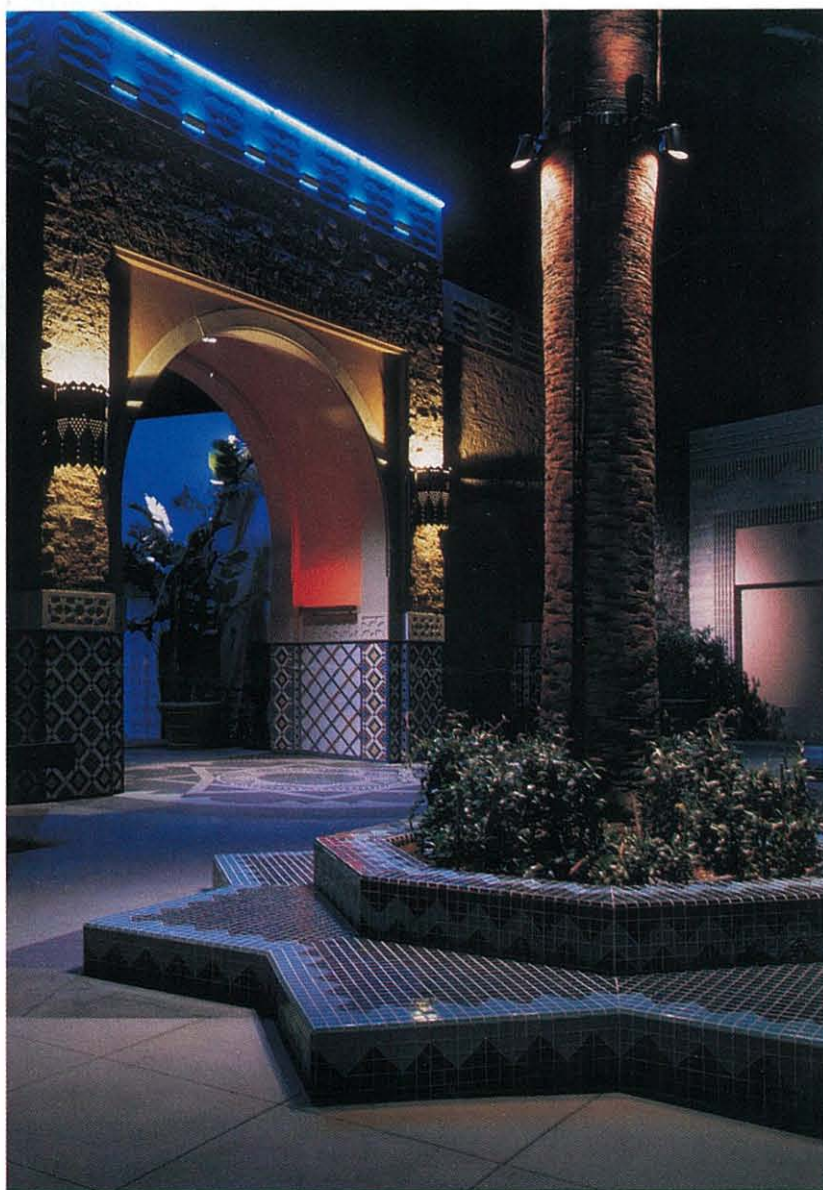
IN CONTRAST TO THE WARM SOURCES, AN EXPOSED BAND OF BLUE NEON AND CONCEALED BLUE NEON IDENTIFY THE ENTRY POINTS FROM DISTANT PARKING SPACES. THE COOLNESS OF THE BLUE NEON DRAMATICALLY ACCENTS THE ARCHITECTURAL FEATURES AND ADDS DEPTH TO THE ARCH. T8 FLUORESCENT FLOODLIGHTS WITH RED COLOR GELS UPLIGHT THE ARCHWAY (RIGHT) AND A SINGLE ADJUSTABLE PAR38 CERAMIC METAL HALIDE DOWNLIGHT RECESSED IN THE TOP OF THE ARCH ACCURATELY RENDERS THE PAVING PATTERNS BELOW.

OTHER EMBELLISHMENTS ARE USED TO DISTINGUISH THE GATEWAYS AND ADD CHARACTER TO THE ARCHITECTURE. FOR EXAMPLE, THERE ARE SURFACE-MOUNTED "FLOATING" SQUARES THAT ADORN THE TOP OF THE MAIN ARCHWAY AND EMIT A SOFT GLOW. "WHILE WE TREATED EACH ENTRANCE GATE A LITTLE DIFFERENTLY—THROUGH THE USE OF NEON TREATMENTS AND ACCENT PIECES—THE CONCEPT REMAINED THE SAME: TO DRAW ATTENTION TO ARRIVING VISITORS IN AN EXCITING AND UNIFIED MANNER," SAID POWELL.

THROUGHOUT THE COURTYARDS, CERAMIC METAL HALIDE SOURCES ARE USED TO UPLIGHT TREES AND DOWNLIGHT PAVING PATTERNS (RIGHT). "A METAL BAND WITH A SERIES OF SIX LOW-VOLTAGE MR16 BULLET LIGHTS IS MOUNTED ABOUT HALF-WAY UP THE PALM TREE," SAID POWELL. "THREE AIM UP, THREE DOWN." AT THE TOP OF THE TREE, ADDITIONAL PAR20 METAL HALIDE BULLET LIGHTS PROVIDE DOWNLIGHT TO THE CERAMIC TILE SURROUNDING THE BASE OF THE TREE.

A SMALLER-SCALE VERSION OF THE REAL TOWER AT THE ALHAMBRA IS RECREATED IN THE CENTER PLAZA—THE DORADO COURT—AT IRVINE SPECTRUM (OPPOSITE, RIGHT); HERE, IT IS EMPTY AND FUNCTIONS STRICTLY AS A STYLISTIC ELEMENT. LOW-PROFILE, CONTINUOUS LINEAR BIAx FLUORESCENT UPLIGHTS WITH RED COLOR GELS ARE MOUNTED ON A LEDGE TO ILLUMINATE THE TOWER'S MID-SECTION. THE TOP OF THE TOWER FEATURES THREE DIFFERENT LIGHTING SCHEMES, PRODUCING DRAMATIC EFFECTS SIMILAR TO THOSE SEEN ON THE SPANISH STRUCTURE: A CONTINUOUS BAND OF COLD CATHODE ENCIRCLES THE DOME; THE CORNERS ARE LIGHTED WITH PAR20 METAL HALIDE BULLETS; AND LINEAR BIAx FIXTURES WITH COLOR GELS ADD RED SPLASHES OF LIGHT TO THE TOWER'S SURFACE.

FIVE 6-FT.-HIGH CUSTOM PENDANTS, SIMILAR TO THE ONE IN THE MAIN ENTRYWAY, ILLUMINATE BRONZE FLOOR MEDALLIONS



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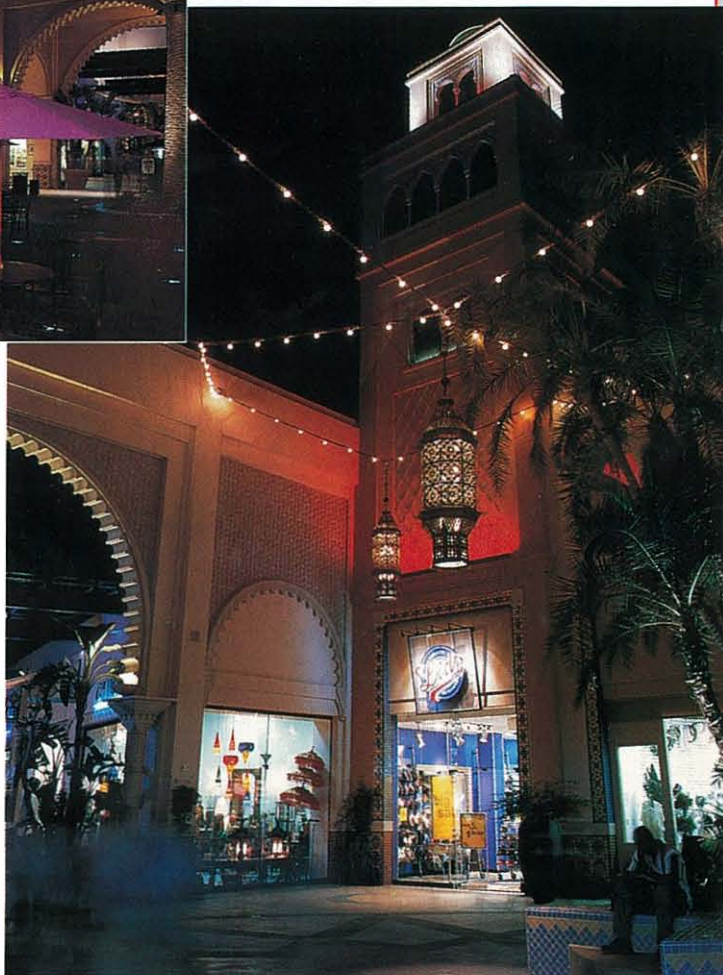


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WITH LIGHT FROM A PAR38 DOWNLIGHT COMPONENT. AS THIS IS THE ONLY AMBIENT LIGHT IN THE COURTYARD—IN ADDITION TO THE XENON SWAGLIGHTS OVERHEAD—THE EFFECT IS DRAMATIC. “WINDOWS” ON THE SECOND STORY OF THE SURROUNDING STRUCTURE HOUSE “INTELLIGENT” THEATRICAL LIGHTING EQUIPMENT, WHICH, WHEN PROGRAMMED WITH THE AUDIO SYSTEM, PRODUCES A SOUND AND LIGHT SHOW IN THE COURTYARD.

IN THE LIONS COURT (ABOVE), TRANSLUCENT STAR PAVERS, DESIGNED IN CONJUNCTION WITH THE LANDSCAPE ARCHITECT AND IMPORTED FROM AUSTRALIA, ARE ILLUMINATED BY COLOR-CHANGING FIBER OPTICS. METAL HALIDE ILLUMINATORS ARE LOCATED IN THE FOUNTAIN VAULT AND ARE EASILY ACCESSIBLE. IN THE FOUNTAIN, LARGE, BLUE, GLASS BALLS EACH HOUSE A SINGLE ENDLIT FIBER, WHICH CREATES INTERNAL GLOW.

AROUND THE PERIMETER, THEMED PENDANTS AND SCONCES BATHE WALLS, OVERHANGS AND ARCHES WITH GOLDEN LIGHT. THESE INCANDESCENT PENDANTS WERE MODIFIED TO INCORPORATE A DOWNLIGHT COMPONENT CONSISTING OF SMALL LINE-VOLTAGE PAR16 LAMPS AND ARE DIMMED TO ALLOW FOR FLEXIBLE LIGHT LEVELS AT EXTERIOR RESTAURANT SEATING AREAS AND TO EXTEND LAMP LIFE. “THE ARCHWAY APPEARS TO GLOW,” SAID POWELL, “AND FROM MOST VANTAGE POINTS, THE LIGHT APPEARS TO BE EMANATING FROM THE PENDANTS.” BUT IT’S NOT. ON THE BACKSIDE OF EACH OF THE COLUMNS, QUARTZ UPLIGHTS IN WALL-MOUNTED SCOOP FIXTURES DO THE REAL JOB OF CREATING THE OVERALL AMBIENT GLOW. ■



DETAILS

- **PROJECT** Entertainment Center at Irvine Spectrum—Phase II
- **LOCATION** Irvine, CA
- **OWNER** The Irvine Company
- **ARCHITECT** RTKL—Paul Jacob, David Schmitz, Kevin Horn
- **LIGHTING DESIGNER** Lighting Design Alliance—Andrew Powell
- **PHOTOGRAPHERS** Anthony Peres; Andrew Powell
- **LIGHTING MANUFACTURERS** Philips; RSLI; Orgatech Omegalux; Hadco; Tokistar; Architectural Cathode Lighting; mcPhilben Lighting; Arte de Mexico; Bega; Martin Professional