

LIGHTING DIMENSIONS®

goin' down to **rio**



BARRY MANILOW ▶ SIX FEET UNDER ▶ PRODUCT REVIEW: VL2402 & VL2202

special event

CARNAVAL IN RIO





PETER GASPER LIGHTS THE SAMBADROME

BY ELLEN LAMPERT-GRÉAUX

The most exciting time of the year in Brazil is during Carnaval, the popular pre-Lenten celebration when the entire country explodes with dancing in the streets, sumptuous costume balls, and colorful parades. In Rio de Janeiro, one highlight of the Carnaval celebration is the samba school competition in the Sambadrome on Marquês de Sapucaí Avenue. Each of 16 schools, from the traditional Mangueira School to the more daring Beija Flor, presents an elaborate show complete with thousands of dancers, hundreds of percussionists and singers, fabulous costumes, and colorful floats, each with a different theme, from carousels and waterfalls to cities of the future or the jungle. Millions of dollars are spent as the directors of each spectacle compete to dazzle the audience and win first place. Peter Gasper, the dean of Brazilian lighting design, is responsible for the special effects lighting, and strobes installed on the floats, as well as the followspots, fireworks, and 100 million candelas of Syncrolite and Studio Due fixtures that help make the samba celebration an unforgettable experience. *Lighting Dimensions'* mardi gras aficionado, Ellen Lampert-Gréaux, investigates.

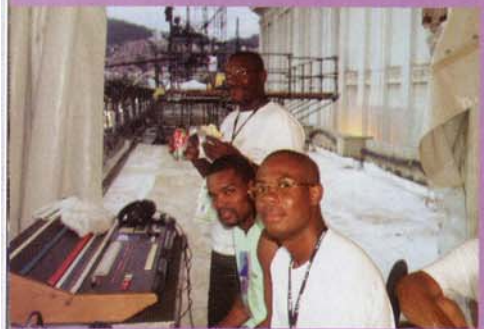
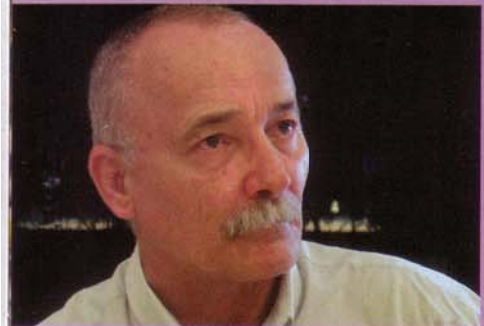
Ellen Lampert-Gréaux: How did the lighting system for the Sambadrome, and especially the use of automated luminaires, evolve?

Peter Gasper: To understand what was done this year, 2002, in the Sambadrome in Rio de Janeiro, we must go back three years to November 1999. At that time, we were looking for a large, reliable, powerful, efficient, programmable beacon to set on top of Sugarloaf Mountain above Rio de Janeiro for a special Millennium event. A local rental company, Iris Lumenotécnica, came up with a Syncrolite SS7K, a 7,000W automated xenon lighting system which was set up on the top of that famous hill. Placed 700m (2,310') above the sea, it was to serve a dual purpose, both as a giant lighthouse and to sweep the beach with color during the December 1999 Millennium festival.

ELG: How did the Syncrolite fixtures hold up outdoors?

PG: The Syncrolites ran perfectly for one full month outdoors in every kind of nasty weather. Rio can have rain, wind, heat, bugs, the works. Therefore, with a total of eight SS7K units, the array of moving, color-changing Syncrolites became an immediate success and pointed out the technical possibility to overcome an old challenge: the replacement of the antique lighting ▶

ALL PHOTOS COURTESY SYNCROLITE



system for Rio's Carnaval parade, an impossible dream which I had had for years and a long-time wish among all Carnaval artists in Rio de Janeiro.

ELG: What happened next?

PG: In order to go ahead, the biggest television network in Brazil, TV Globo (which broadcasts the Carnaval competition every year for an audience of over 40,000,000 people worldwide), sponsored the first lighting test at the Sambadrome during the February 2000 Carnaval. All eight Syncrolites from the Sugarloaf site, before returning to USA, were set up in the Sambadrome to light part of the audience in bright colors and provide a bonus of eye-candy and ballyhoos that were visible all over Rio.

The next year, in February 2001, 16 additional Syncrolite SS7K fixtures were added to the Sambadrome test system. Now, a total of 24 Syncrolite SS7K units and 288 PAR-64s provided a complete audience lighting system which looked great on television. In addition to the color washes on the huge audience, the Syncrolites provided a full range of skylight effects visible all over the city. TV Globo, the audience, and the Carnaval artists from all the samba schools were very impressed. This opened the way to a completely new lighting system for the entire parade.

ELG: How did you get the new system into the budget?

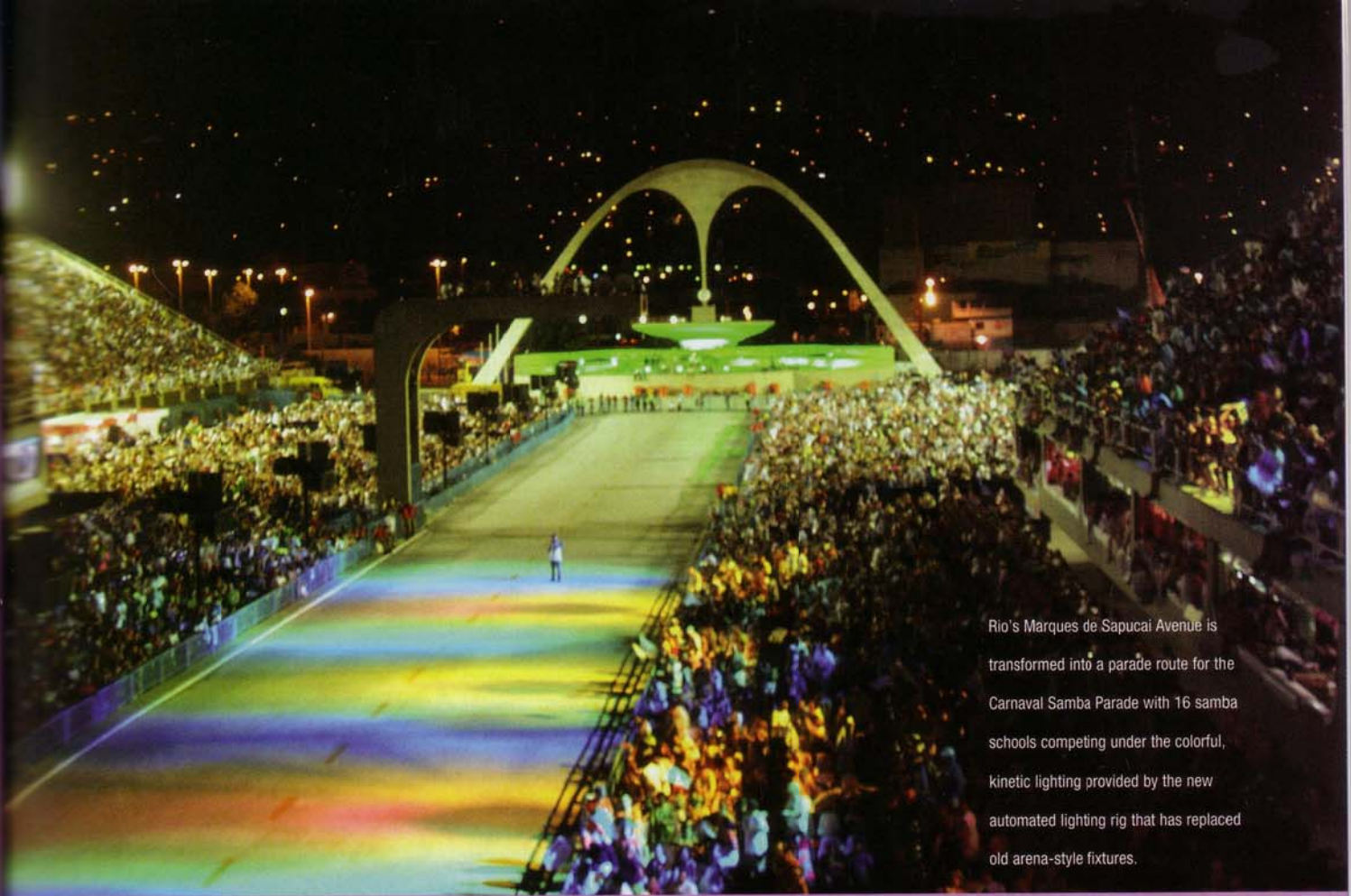
PG: Aloysio Legey, TV Globo's artistic director for Carnaval, joined the project. He convinced City Hall and the Tourism Bureau of Rio de Janeiro that the time for the big lighting changeover had finally come. Legey had also been convinced of the need for new lighting for the Sambadrome for many years, but there was no automated lighting technology available that would serve as a long-throw wash, long-throw spot, and effects light with color until the Syncrolites were available.

ELG: How did the samba schools get involved?

PG: The leadership of the samba schools entered the picture, last but not least, to confirm the project and set some final limits. For the first year, 2002, they would allow no color on the actual parade, but it was okay everywhere else—audience, sky, runway, pre-show, post-show, etc. The Carnaval artists simply need more time to adapt to this new theatrical lighting dimension. So over the next two years of Carnaval, we will continue to increase the number of units and provide gradual upgrades to complete the system. Within a total of five years, starting from 2000, the transformation will be complete and each ▶



Peter Gasper (left, third from bottom) designed the new, colorful lighting of the Sambadrome. Third photo from top is Syncrolite project manager Jimmy Page. Second from bottom are some of the many crew members who made it all happen.



Rio's Marques de Sapucaí Avenue is transformed into a parade route for the Carnaval Samba Parade with 16 samba schools competing under the colorful, kinetic lighting provided by the new automated lighting rig that has replaced old arena-style fixtures.



RIO CARNAVAL 2002

Lighting Designer

Peter Gasper

Software Assistant to

Peter Gasper

Rogério Wiltgen (programming and operation)

Hardware Assistant to

Peter Gasper

Flavio Magalhães

Technical Manager

Beto Kaiser

Syncrolite Project Manager

Jimmy Page

Senior Programming

Consultant

Troy Eckerman

Programmer

Ted Mizrahi

Power

Carlos Eduardo Bellinguer

Lighting Vendor

Iris & Syncrolite Brazil

Producers

Novamente Produções/
Jefferson Bandeira

Equipment

84 Syncrolite¹²⁰ SX7Ks and SS7Ks
16 Syncrolite SX3Ks
90 Studio Due¹²¹ CityColors
648 1kW PAR-64s
5 Avolites¹²² Pearl 2000 control boards
1 Avolites Sapphire 2000 control board
20 Syncrolite 6x30 power distribution boxes
Avolites dimmers (324x2.4kW)
10,000' DMX cable
7000' 8/5 cable
Several miles of feeder cable

Circle Number on
Reader Service Card



samba school will add lighting design to their presentation and judging criteria.

BLG: So how did you light the event this year?

PG: At last our dream came true: a new, state-of-the-art large-format automated lighting system for Rio's Carnaval parade.

The goal of the new system, comprised mainly of Syncrolite xenon fixtures, was primarily to replace the old arena-type lighting system, conceived many years ago to accommodate the high light levels required for the now-obsolete orticon-tube TV cameras. These older cameras, used for many years for the Carnaval broadcasts, needed very high and constant light levels along the entire 656 yards (597m) of the Sambadrome parade route to register the colors and contrasts of the costumes and floats. Variable light levels, color, and effects were out of the question and the parades were lit like a typical sporting event, not a theatrical presentation.

BLG: What kind of lights were used in the past?

PG: The old arena luminaires, which were installed 20 years

The samba shows include colorfully dressed dancers and musicians as well as fabulously themed floats with built-in strobes and special effects to add to the excitement.

ago, were 2kW metal-halide fixtures with a very broad distribution of light, but no color-mixing, no dimmers, and no way of focusing. They now belong to the past.

BLG: What are the requirements for the new lighting system?

PG: The first is to crosslight the parade for a better 3D effect, and to shape and sculpt the performers as if in a regular ballet presentation, with average luminaire placement at distances of 200-300' (60-90m) from the stage (equivalent to trim height). Some of the floats are 50' (15m) tall and the higher focus positions must be quickly adjusted as they move.

Also, to fade in at the start of the parade and go along with it. Then, progressively fade in and fade out as the parade moves down the runway. We also require the luminaires to double as a very narrow spot beam or as a broad wash, requiring a sophisticated auto-focus mechanism, again, all at these long distances.

I also want to light parts of the "stage" in color, keeping the parade in brilliant white as the groups move down the huge runway. At the same time, color the parade or use sky beams to show the individual samba school colors when necessary, while blacking out the audience. These luminaires also ▶

allow me to pre-program, mix, and fade various effects including fans, canopies, fast douser chases, fast color chases, focus chases, and good solid washes.

ELG: What about the needs of lighting for television?

PG: For television, I highlight the sky and the Sambadrome with big looks during the intermissions and dazzle the audience with eye-catching lighting effects between parades and make the Sambadrome visible for miles around. The long helicopter and blimp shots were awesome on TV. Other concerns are to get at least 80-100fc in a flat field over the entire parade route, measured at the camera's axis. The minimum f-stop should be at 3.8, for good lens focus. You also need a high color temperature, approximately 5600K, due to cultural tradition and for technical reasons. Artificial daylight should blend well with dawn and sunrise, as the show starts at sunset and goes until dawn for TV.

ELG: Are there other challenges on this project?

PG: One challenge certainly is to work in constant, heavy rain or extreme humid conditions with no failures. The

parades go on regardless of weather.

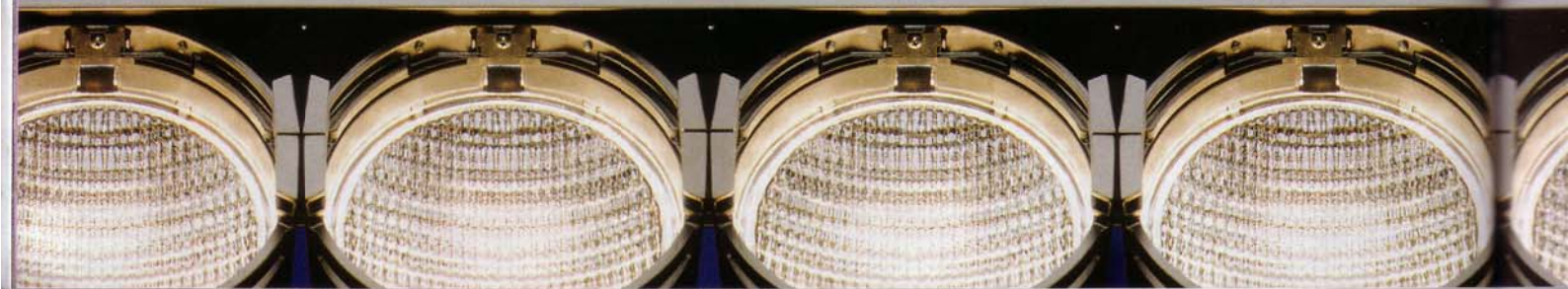
ELG: Where are the lighting positions?

PG: The Sambadrome was divided into five "technically-independent" maxi-stages measuring 295' long by 40' wide (88x12m). Each "stage" was divided into 12 acting areas. To light each acting area, one Syncrolite SX7K was placed stage left for each 1/12 zone coupled with two Studio Due 1.8kW City Colours stage right.

The stage left Syncrolites were placed by cranes onto special scaffolding-type structures at the top of the audience bleachers at a 200-300' (60-90m) trim. Each Studio Due CityColor, with four 1kW PAR-64s added for better wash effect, was mounted on a frame off the side of the roof of the suites building (across from the bleachers) at a 50' (15m) trim. In addition to the stage left Syncrolites and the stage right CityColors there were also eight special scaffolding towers, 100' (30m) above the suites building, on its roof at stage right, 160' (48m) above the parade floor. A total of 24 Syncrolite SX3Ks and SX7Ks and 288 PAR-64s were installed on these scaffolds to light the audience on the bleachers and to complete the higher-angle crosslighting of the parade route.



This is not your grandfather's striplight
Source Four® MultiPAR™ Striplight. NEW from ETC.



ELG: What about the control system?

PG: A total of five Avolites Pearl 2000 control boards, one for each "maxi stage," were set up to control the show. These five secondary board operators were called by the main lighting operator at lighting board #3 in the center position. Another control board, an Avolites Sapphire 2000, took care of all Syncrolites on the stage right side and PAR-64s for audience lighting. Next year, all control will be centralized into one console to improve the programming coordination and to add more effects capability. Troy Eckerman, a Syncrolite veteran and top US programmer, worked with programmers Ted Mizrahi and Rogerio Wiltgen to insure smooth coordination of all these zones.

ELG: Where does the power come from?

PG: All power was supplied by 15 Cummins Diesel 350kW generators parked around the site with total redundancy. No power problems can be tolerated on a show that is on the air for 12 or more hours per day, and there were none.

ELG: How did the new system hold up for the event?

PG: As the ultimate test, this year's Carnival was extremely demanding on the lighting system, as it rained every day and the system was required to run full out for 16 hours per day

for 10 days including rehearsals, run-throughs, and broadcasts. The Syncrolites were amazing in that they perfectly fit the requirement for large-scale wash and spot and effects lights and not a single fixture went down, nor did we even burn up a gel scroll. The newer Syncrolite SX7Ks and SX3Ks are the state-of-the-art for large-format lighting, but even some of the older SS7Ks which were used functioned very well. These 100 large-format Syncrolites and the 80 Studio Due CityColor fixtures replaced more than 2,000 smaller-format moving lights which would have been required to light the same area. They were also brighter and much less costly and troublesome to deal with.

ELG: What's up your sleeve for next year?

PG: We plan to add 50 additional Syncrolite SX7K units next year, consolidate control, and begin to teach the samba schools how to use theatrical lighting to enhance their presentation. We predict that this new theatrical lighting element will be a samba school judging category within the next two years. Also, as planning for Carnival 2003 continues throughout the year, various Brazilian lighting professionals will work in Dallas, TX, with Syncrolite to be trained on the proper use of large-format lights and attend the tech school there.

Contact the author at elgreaux@primediabusiness.com.

ETC has updated the classic striplight fixture with the acclaimed technology of the Source Four. We've combined the efficiency of the HPL lamp and the smooth even field of the Source Four PAR to create a revolutionary new lighting tool, perfect for backdrop and fill lighting.

The MultiPAR outshines Par 56 and Par 64 strip-lights. And with our four interchangeable lenses, any beam spread can be achieved without the hassle and expense of changing lamps.

- Available in standard configurations of 3, 4 and 12-lamp strips as well as two nine-cell arrays
- Custom borderlight sizes available
- Works with all HPL 375W, 575W and 750W lamps
- Provided with four lens types, from VN5P to WFL
- Uses gels and roundels

Visit our booth #L6641 at NAB 2002.

Source Four MultiPAR. That's ETC.



Circle 16 on Reader Service Card

Americas Tel: +1 608 831 4116 Fax: +1 608 836 1736 ■ Europe Tel: +44 (0)20 8896 1000 Fax: +44 (0)20 8896 2000 ■ Asia Tel: +852 2799 1220 Fax: +852 2799 9325 ■ www.etcconnect.com

