## new. new. nusic Joan La Barbara



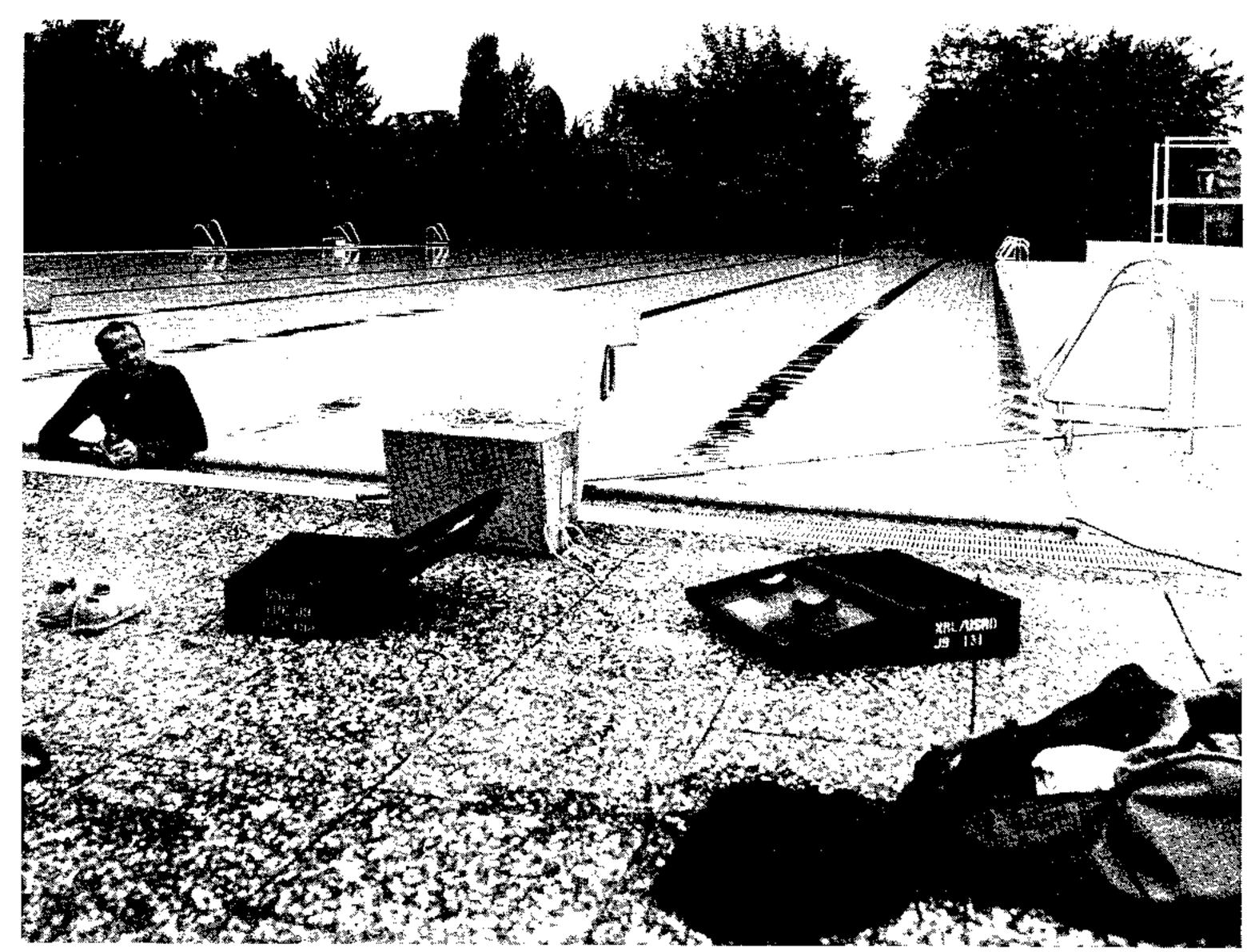
Max Neuhaus under sound-laden tree at Kassel: a sense of peace and calm

Max Neuhaus: new sounds in natural settings

S I STOOD on the roof of my New York apartment building Last July Fourth watching two full hours of fireworks from several directions, I discovered I was also experiencing a rather incredible concert; the cracks that accompanied each new flash of color resounded through the canyons of the city, ricocheting off the reflective surfaces of the structures until the echoed sound was engulfed by a new crash. Single explosions were the most wonderful aurally, as one could follow the path of the sound as it traveled away along several corridors. Multiples were nice for their shock value as well as for the complicated reverberative patterns they set up. Adjusting one's ears and mind to accept unusual (and usual) sound circumstances in terms of musical events, and expanding the concert forum to include all times and all places have been major developments in this century's music, effected initially perhaps by John Cage in his pieces that make much of the sounds of "silence," and continued through the works of a number of contemporary composers.

## Neuhaus: retraining ears

Max Neuhaus' works focus on that most important function of the composer in society, of retraining ears and minds, by utilizing original contexts or situations as new forms in which to set pieces. A case in point is his most recent underwater music concert in Berlin. Each new pool situation has



Neuhaus adjusts underwater sound system in Berlin: intuitive decisions

unique acoustical characteristics which affect the perception and reception of sound made and heard in water. Beginning with this concept, Neuhaus invented an instrument called the water whistle (a series of hoses forcing water through whistles to make pitched sounds underwater) and created seventeen pieces for this instrument, each one involving a different pool. His recent explorations in this form have involved loudspeakers designed specifically for underwater use, expanding the range of sound possibilities to include the almost infinite variety available through the use of electronics. With infinite variety comes the task of choosing those sounds that work best, a task combining scientific process and intuitive, creative decisions.

On a very chilly Berlin evening last summer, Neuhaus donned his partial wetsuit, jumped into the pool and began the lengthy process of finding the most resonant frequencies of this particular space, sweeping through the sound spectrum listening for peaks, zeroing in on those areas until the exact pitch is found to which this pool responds. Beginning with hand signals to his German assistant to indi-

cate pitch direction and speed of the tonal sweep until darkness closed in, Neuhaus would occasionally climb out of the pool to adjust the sound properties by changing wires in the "bread boards" (instant circuit boards which can be changed conveniently without soldering, until final decisions about the circuit's design are made). Once the pitches are found and speakers are tested for their directionality and responsiveness to certain ranges, the creative work begins, imagining qualities that might be attractive, trying these, making adjustments, restructuring the sound shape so that its flow and rhythm feel right, leaving the pool to redesign a circuit, returning to test the new sound, repeating the analytic and intuitive processes until the piece is complete. Fifteen hundred Berliners reaped the benefits of all this work in a concert performance that lasted from 11 p.m. until dawn, as Neuhaus watched the wide ranging audience appreciate the sounds, observing that even those persons with the shallowest level of musical understanding began during the course of the evening to listen more completely.

## **Discoverables**

While massive sound, social events are a part of Neuhaus' work, he is also interested in more long-term installations, "discoverables" as he calls them, pieces into which some one may wander and suddenly realize that an organized collection of sound is being presented. Such is a piece he recently installed at Dokumenta 6 in Kassel, designed to produce sound continuously for three months. Beginning with a cluster of click-like sounds, spirally distributed to "water" the grass with sound, Neuhaus began experiments to find sixteen highly directional speakers which would send the individual clicks to very specific points on the ground. The speakers and system and power pack were then placed high up in a tree, camouflaged by paint and leaves, turned on and left for the casual stroller through the park to discover and enjoy.

Set in a small, quiet grove of trees off the main path, the sound is encountered as one enters the area. It is not a startling sound but one that feels organically connected to the area, emerging out of the songs of

ands, the crackle of twigs, and the tastle of leaves in the breeze. The first upression is one of peace and calm, wen before one is aware of the sound itself. Once the sound is located, the impulse is to stop and listen, locate the source perhaps to be better able to seate oneself in direct line with a speaker, to be in the direct path of a droplet of sound. As you circle the tree, there are points where the sound urges you to stop and listen as it conunues to travel from speaker to speaker, distributing the different gitched clicks around the ground in their spiral orbit. One hears the path I the sound as it travels away and around the tree to return to your scopping place. Then one moves on to a new location, repositioning to listenagain in a new drop-spot. The effect is ne of sheer serenity. Neuhaus has designed an electronic system whose sounds are so consistent with the enviconment that they seem indigenous to their location.

## New York is next

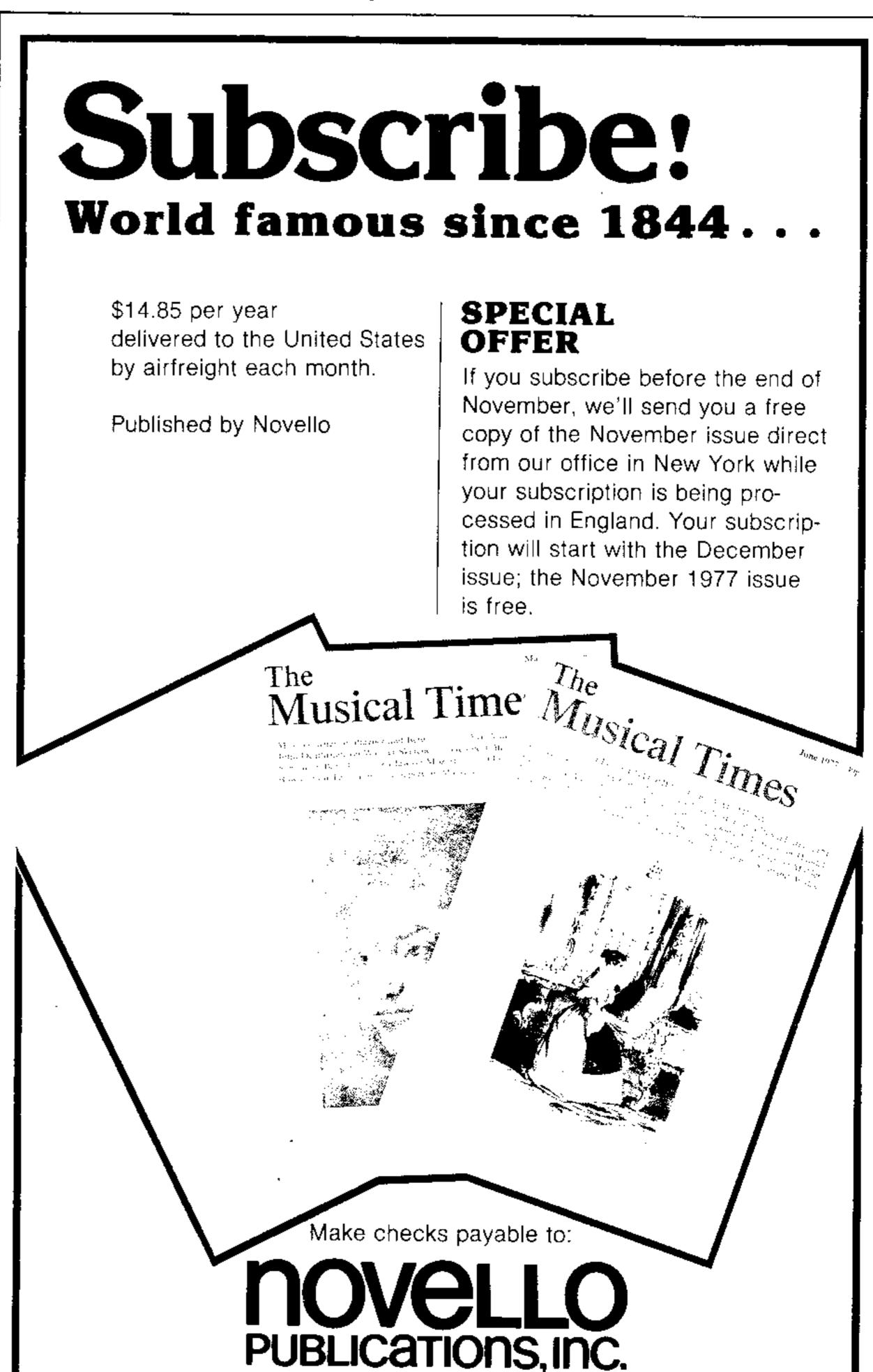
Designing sounds to fit spaces occupies much of Neuhaus' thought, and his next installation in New York begun many months ago but interrupted by his artist-in-residence period in Berlin) will involve a subway ventilation chamber located under a pedestrian island in Times Square. Having placed enormous speakers in the chamber already, the next stage of the work, scheduled to produce some sounds ready for listening by this month, is to find the proper sound to fit the place, a process which may be similar to the one used to find sounds for the pool. His conception at the moment is that there should be an anonymous sound coming out of the ground in this heavily trafficked but not very noisy place, and that one should discover it in passing and stop ⇒ listen.

His next European proposal involves a Tower of Babel affair utilizing the format from his highly successful lanuary 2 Radio Net (1977) in which the whistled sounds of ten thousand people were collected over telephone lines, altered electronically, mixed and redistributed by Neuhaus from a central location in Washington, then troadcast over the National Public Radio system. In the European piece, anguage sounds would be gathered at the phone points in five cities (at this

writing the chosen cities were Paris, London, Milan, Cologne, and Warsaw). In each city eight lines would be available to accept calls and feed them into a switching system, a performing instrument designed to make certain compositional decisions indicated by Neuhaus. It will choose timbres, vowel groupings, consonant configurations, certain structural and grammatical aspects and send the composite signal composed of its choices to the selected central broadcast location, where the composer

will make final adjustments to the five-city mix and broadcast this myriad of language extractions.

Unlike many composers who create in isolation and then take or send their pieces to be played in a variety of circumstances, Neuhaus goes first to the situation or environment and designs a piece that is specifically tailored to fit the needs and likes of the space. He concentrates on expanding our conception of where and when one can enjoy music, and even what music is.



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