



## IRCAM

1973 – 1978; 1988 – 1990 Paris, France

In 1969 President Georges Pompidou asked Pierre Boulez to establish and direct an institute for musical research, as part of the future Centre Beaubourg. However the IRCAM (Institute for Research and Coordination on Acoustics and Music) was not included in the 1971 competition, but the events of its design and construction developed parallel with those of the Centre Pompidou. In fact, as winners of the competition, Piano+Rogers together with the engineering firm Arup inherited the commission. Construction began in 1973 and the Institute was opened in October 1978. The close friendships formed on this occasion with Pierre Boulez (IRCAM's president 1977-1992) and Luciano Berio (director of the electro-acoustic section 1974-1980) led to Renzo Piano's entry into the world of music and the start of the design of a whole series of spaces for music designed in the following decades.

The IRCAM's mission is to stimulate and pursue scientific research into the creation of music. It is a meeting place for scientists and artists working together on the physics and modification of sound, signal transmission, cognitive psychology, musicology and music creation.

The Institute lies beneath Place Igor Stravinsky, almost completely underground next to the Centre Pompidou. It was meant to take the place of a primary school slated for demolition during construction of the Beaubourg. Once the site was cleared, however, it revealed the beauty and value of the urban square, which also created a decompression space for the imposing façades of the Beaubourg as well as opening up the view of the transept and choir of the Gothic church of Saint- Merri. It was decided, therefore, to retain the square and place the IRCAM spaces below grade. The underground location also helped solve the problems of soundproofing.

The center develops as three rows of spaces arranged parallel with each other: the area of open access directly on the square provided by a slit in the ground, lit vertically by skylights; the offices, placed as a barrier to screen the noise coming from the outside; and finally, in the most secluded part, the recording rooms. Each of them has been designed with special spatial characters and qualities of sound absorption, including a so-called "dead room" (anechoic chamber) where the sound-absorbing panels annul all sound waves.

The heart of the Institute is the great experimental acoustic projection hall, developed with the Dutch acoustic engineer Victor Peutz. This is a cube of 20 meters per side that adapts flexibly to various uses: from concerts and performances for audiences of up to 350 people to private recording sessions. The four walls and the ceiling of the room are mobile, so as to enlarge or



reduce the volume of the acoustic effect. This spatial flexibility, enhanced by the seven positions of the rotating prisms of the sound-absorbing panels, makes it possible to vary the time of sound reverberation from 0.6 to 6 seconds. The room is also completely raised off the ground, being mounted on large elastic joints which eliminate the ground vibrations from a metro line 50 meters away.

In 1989 the IRCAM was endowed with new spaces: a conference room, media library and offices, clustered in a narrow building nine stories high, six of them above ground, set on the corner of Place Beaubourg and Place Igor Stravinsky, adjacent to the underground excavation. The creation of the new building finally signals the IRCAM to the city, giving a public image to the Institute, which was previously relegated underground. The tower is distinguished by the alternation between glazed and opaque sectors, achieved by using prefabricated terracotta elements attached to concealed support bars. The base of the tower also gives access to the Institute through a slender bridge spanning the skylights of the previous entrance area.