



Massimo Roj

# Progetto CMR

波捷特公司Progetto CMR由Massimo Roj于1994年创办，公司第一个重要项目来自于跨国公司JP Morgan，随后与吉列、可口可乐和佳能等众多公司合作。凭着在建筑办公空间与环境质量最优化方面的丰富经验，Massimo Roj和他的设计团队多次与意大利公共管理部门合作，进行多项办公建筑设计项目。同时Massimo Roj完成《工作空间/工作环境》和《设计的语言》，最新出版了《以人为本的设计》，从这些著书中不难看出建筑师的设计思想与主张。自2002年公司在中国设计分公司以来，参与了多个项目，如天津华苑工业开发区规划、天津前意大利租界的意大利商贸会展中心，以及2010世博会的中国铁路展馆。2010年Cisco System Milan 米兰总部项目获得了“色彩@办公”一等奖。近年来，公司开始不断关注建筑设计中的可持续性，并把其作为实现建筑各项目标的重要方式，用公司新的座右铭总结就是“Less Ego, More Eco”，即更少的个人利益与更多的以社会、大众为整体的利益。



# Maccaferri 工业公司总部，博洛尼亚，意大利

## Maccaferri Industrial Group Headquarters, Bologna, Italy

建筑设计 Progetto CMR  
项目完成时间 2010年  
总建筑面积 11 200m<sup>2</sup>  
编译 吴春花

设计总是要基于一个目标，我们的首要目标就是满足客户的需要。有时候客户可能并不知道他们确切需要什么，这时我们就要密切关注并理解他们不断需要的东西，然后把其变成建筑空间。此项目最大的特点是两个公司共用一个建筑，同时在两个公司的独立性与整体性之间找到平衡。通过细致的分析，我们设计了一个灵活高效的建筑，人们可以在水平向和垂直向很容易地移动，沟通更便利。

针对原有工业背景的环境，我们以多色玻璃为建筑立面，有的部分透明，有的部分反射，有的立面板背面上釉模糊视线，以此整体提升区域环境。通过仔细研究当地环境和气候来选定玻璃的色彩，使其融入环境中，并使建筑具有了微妙的表情，看上去更加轻盈。Maccaferri公司的新总部包括一个办公建筑、三个小型工业建筑，其中两个用作储藏室，另一个改为咖啡屋，还有一个更大的制造车间，同时在办公建筑与工业建筑之间设置了大片绿化。基地的性质、高度可视性以及当地气候激发了整个设计，不仅适应了景观环境，也恰当表达了企业形象与特征。项目旨在使新旧建筑之间有所对话，环境与认知之间发生关系，使建筑形式与功能、节能之间发生关系。办公建筑由一个容纳共享功能的中央核心体和两翼的生成部分组成，其中两翼建筑包围着整个区域，并将立面展现给人们，从入口和道路上即可

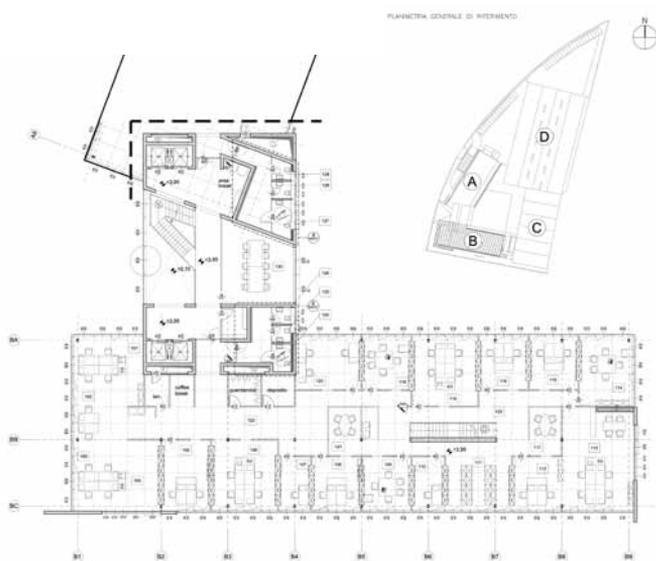
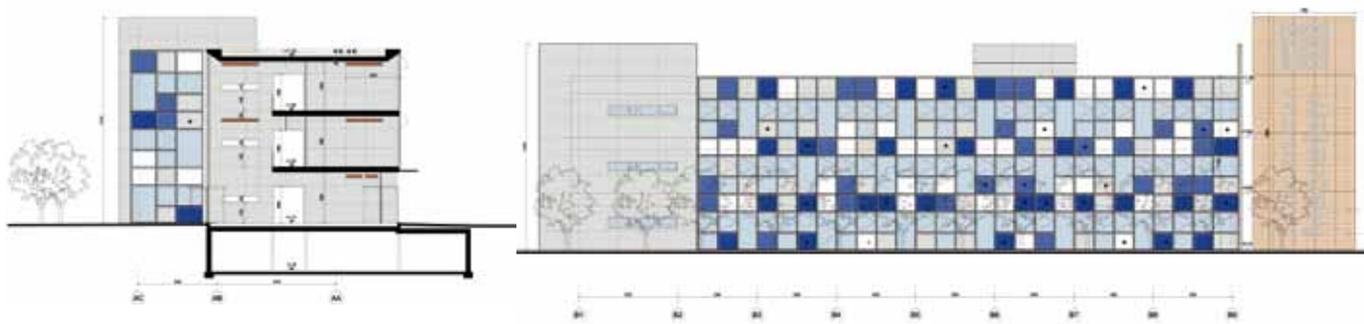




看到。中央结构像是一个大型机械轴，另外两个建筑围绕其周围，将建筑分开同时也将功能结合起来，可以在水平与垂直空间中移动。设计阶段为了确保建筑在真实环境下的光照效应，我们制作了实体模型置于场地中观察不同时间、季节的实际光效应，最终设计了全釉面而非完全透明的建筑，多数立面透明率约为30%，其余的立面在彩色玻璃后面运用了实心绝缘板。这样玻璃与立面分离，玻璃作为阻挡日光的第一道防线，同时也能够通风，使得其后的绝缘板在夏季不至于过热。新建筑实现了由内而外的设计，内部空间被透明或不透明的可移动墙体分隔，根据不同工作团队需要既可以形成开放空间、闭合办公室，又可以形成共享区域、会议室等，这样优化了空间划分和管理，提高了空间舒适性。

整个设计过程希望成为对建筑、结构与系统工作的一次能量整合，以此作为对高耗能环境的简易而可复制的方法。依照当地技术限制和工业标准，新建筑每人减少能耗约30%。为减少夏季、冬季的耗能和提高能量效率，建筑系统选择冷、热液体用于控制温度，同时利用电源高效电动机分配空气和水体流动，以满足不同空间温度需求。

“I start to design based on achieving a goal. My primary goal is always to satisfy my client’s needs. Sometimes the clients themselves don’t know exactly what their needs are; we have to pay close attention to understand these needs as they gradually emerge. The foundation of design is to translate these needs into spaces. Until this has been done, it makes no sense to me to pick up my good old pencil or put to use the highest tech computer. I’ve never been an “archistar” and I have no ambition to become one. I have always designed for my Clients, not to satisfy my ego. Interpreting Clients’ needs and expectations is the essential starting point to make a design that conceptually and physically reflects the philosophy and image of a person, a company, or, as in this case, an entire group. Before implementing any project idea, we of Progetto CMR listen. One of the unique features of this project was bringing two of the group’s companies to share one building and finding the right balance between the independence of the individual companies and the group as a whole. Only through dialogue and careful analysis were we able to determine their shared elements and individual needs. There was the need to create a structure in which the work could be quickly organized and communicated, without interferences causing unnecessary loss of time, energy and information. We therefore conceived a building of limited proportions and height, in which people could easily move about, both horizontally and vertically. Rather than a mere construction, we designed a flexible, efficient building that fully



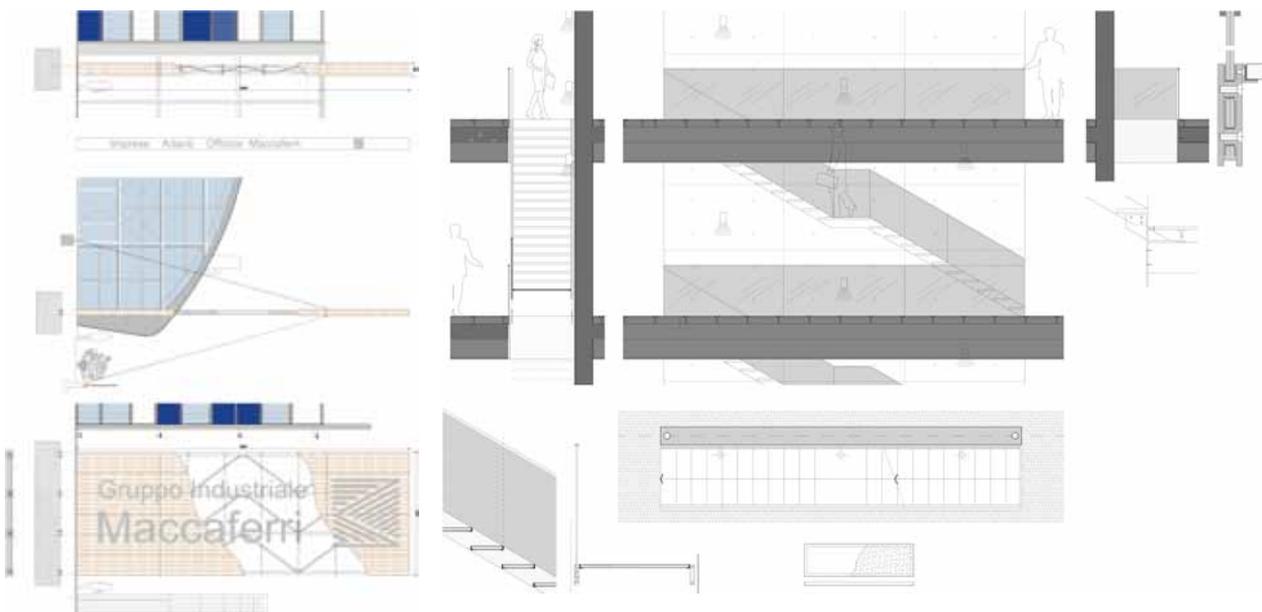
B楼平面

reflects the values underpinning the company and their wish to make their presence seen by something that goes beyond its symbolic meaning.

We designed for and around people. This design reflects our humanistic philosophy.”

Massimo Roj

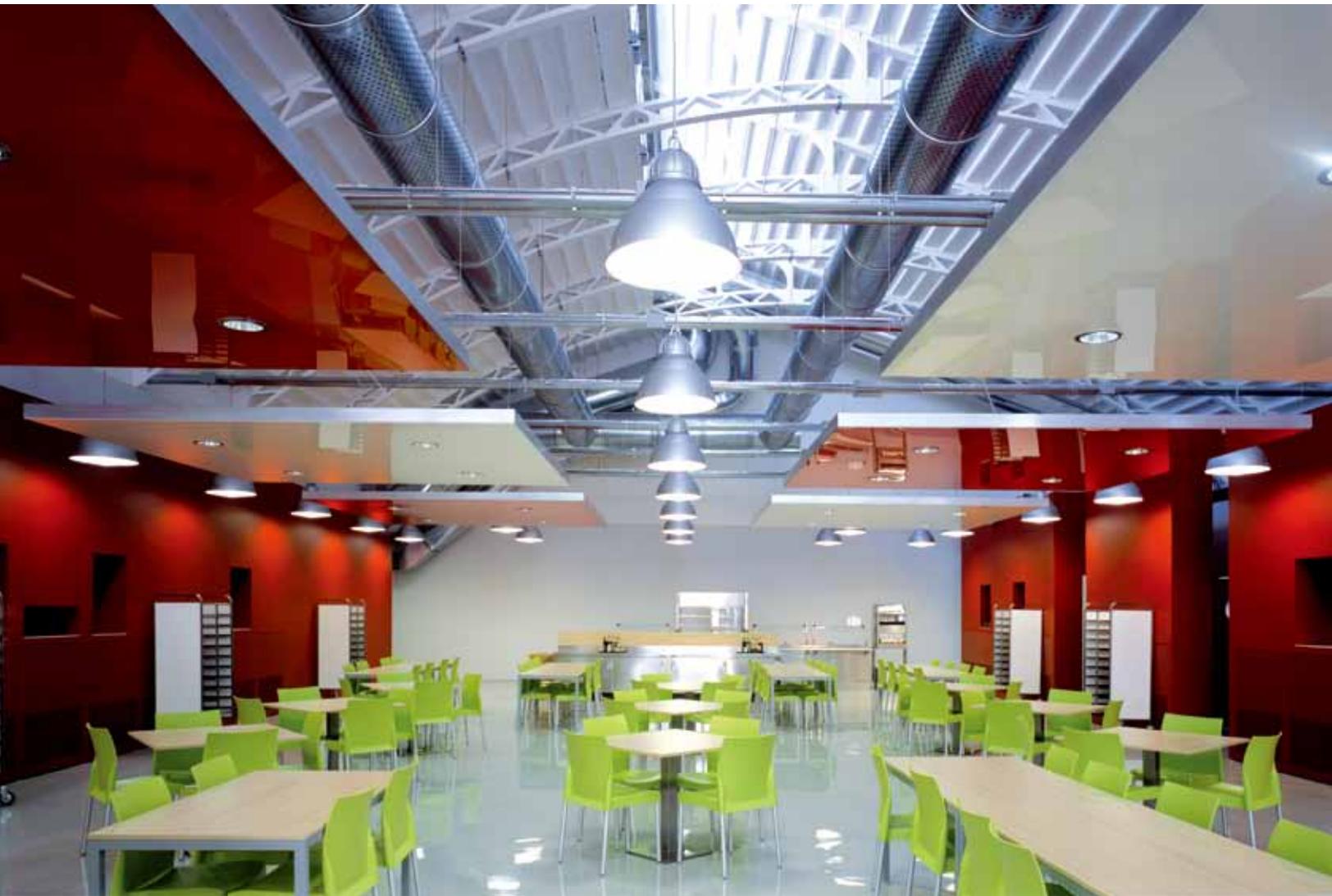
The area is set in an industrial context and needed to be improved and not compromised by the design. The solution was to make a multicolored glass building whose surface is partly transparent and partly reflective; some of the façades panels are obscured by glaze on the back. The colors were chosen based on a careful study of the area and weather conditions in order to fit it seamlessly into its context, making the building very lightweight. This gives the building a subtle presence while conveying a powerful image. The new headquarters of the Maccaferri Industrial Group covers over 11,000 square meters and holds an office building, three small industrial buildings, including two for warehousing and a third converted for use as a cafeteria, and a larger shed for manufacturing. There is a large green area between the industrial buildings and the office buildings. Facing this square are the administrative and production areas, bounded by a shelter for easy movement between the cafeteria and warehouses. The site’s nature, the area’s high visibility from the high-traffic road and the local climate inspired the design of a complex that fits perfectly into the landscape, while expressing a strong image and company identity. The project’s major themes included: dialogue between old and new, the relationship between merging with the surroundings and



being recognizable, between architectural form and operational functions, and energy efficiency. The office building consists of a central core that houses shared support functions and two wings for production. These wings conceptually embrace the entire area and are major features of the project as a whole, giving emphasis to the two main façades: one holding the entrance to the complex and the other visible from the heavily-trafficked road. The new building includes a basement level and three above ground levels on an area of 4,200 square meters divided into two rectangular blocks, each about 14 meters deep and 30 meters long. A central structure, like a large mechanical pivot around which the two buildings revolve, divide the buildings while combining their functions and allowing for both horizontal and vertical movement within them. It is the core of the entire office complex, which becomes suddenly visible to welcome visitors: the reinforced concrete structure conveys an image of great solidity, while the large window of the entrance and the telescopic effect created on the ground floor frame the sheds and shelter behind them. During the design phase, to ascertain the building's exact exposure and the façades' behavior, a solid model was placed on the area which made it possible to determine the exact effect of the sun at different times of day and in different seasons. The solution was to design a fully glazed yet not completely transparent building. The most

exposed facades are only 30% transparent, with the use of high performance spectrally selective glass, while the rest is filled with solid insulating panels, clad on the inside by glass back-glazed in the color of the structure of the facade and on the outside with glass back-glazed with different colors. This glass is separated from the panel and serves as a first barrier against sunlight and provides ventilation to prevent the insulation panel underneath it from overheating in the summer. The building was designed and developed based on the actual needs of those who work there: it came out of understanding that a mere architectural mark made without understanding the client's needs, might make a strong visual impact, but risks becoming a source of discomfort for those who will use it.

The new headquarters of Officine Maccaferri and Seci Energia is a building designed from the inside out. The interior space was divided with fitted mobile walls that are partly glazed and partly opaque with a wood finish. This made it possible to make open spaces, closed offices, shared areas, meeting rooms and toilet areas, depending on the needs of the various work teams and different kinds of activities. Progetto CMR designed brightly lit, invigorating offices for about 160 people, focusing on the functional aspects and flexible solutions in anticipation of possible future changes. It optimized the division, arrangement and fitting out of each area and work station to



ensure that every user has the highest level of comfort and wellbeing as well as providing optimal efficiency.

The design process to build the new headquarters of the Maccaferri Industrial Group was conceived as a development of an integrated energy system in which architecture, structures and systems work together to create innovative, yet simple and replicable, solutions for high energy and environmental performance. A savings of about 30% per user can be estimated compared to buildings built in compliance with legal technical limits and industry standards, bringing the time of return on the greater investment down to about eight years. With the goal of reducing primary energy use and improving energy efficiency in both winter and summer, building system choices were made to produce warm / cold fluids for climate control through multi-purpose units, to heat transfer fluids simultaneously available, for high level heat recovery and reduced size. The systems also use energy efficient electric motors to distribute air and water fluids depending on the climate control needs of different spaces.

Progetto CMR' s main goal is to satisfy its clients by defining spaces for optimal living and working conditions. The studio always starts from an in-depth study to understand how a company is organized and its business systems and organization. The needs of each individual person, each work group and the company that will use the building are always the focus of design concepts that lead to creating a practical, flexible and efficient work environment. **AT**