

## Structural analysis of the Forest Palace Building in Bizkaia

At the beginning of spring 2000 while working on the rehabilitation of the elegant Forest Palace owned by the Bizkaia Forest Deputation, CONSTRUCCIONES AMENÁBAR encountered broken lintels, deformed cornices and deteriorated, out of plumb, pinnacles on the last floor of the building.

At the request of CONSTRUCCIONES AMENÁBAR, FHECOR Consulting Engineers elaborated a detailed report on the structural diagnosis and proposed plan of action.

After examining the structure carefully and in great detail, it was concluded that the corrosion generated by

steel profiles acting as lintel-joists, had produced the expansion that finally led to the fracture of the stone elements, aforementioned.

The rather daring solution consisted in removing these steel profiles and taking advantage of the possibilities of resistance of the stone lintels and the concrete elements (with rustproof reinforcement) which were set into the gaps left by the profiles.

All operations included wooden scaffolding made by CONSTRUCCIONES AMENÁBAR and were performed under strict control and constant supervision by FHECOR Consulting Engineers.



Spain /2001  
Project data

Structural Type:  
Masonry work  
Location:  
Bilbao, Bizkaia  
Opening date:  
2001  
Proprietor:  
Regional Government of Bizkaia  
Engineering Consultant:  
FHECOR Consulting Engineers  
Construction:  
CONSTRUCCIONES AMENÁBAR  
Scope of Works:  
Structural Diagnosis and  
Action Plan Proposal