

The international conference "*Between East and West: transposition of cultural systems and military technology of fortified landscapes*" is organized in order to compare the results and the updates about the several researches made by experts of various nationalities, about the theme of cultural routes and fortified landscapes. The scientific knowledge, the analysis, the documentation and the architectural survey and of the heritage in all its meanings, are essential instruments for the understanding and the improvement of any information and sign that history and culture has produced in each places or in a specific geographic area. These signs are in any case the result of the transposition of cultural models, of building technologies and offensive and/or defensive strategies, that have been tested, consolidated and exported for a long time, and that have determined the image of whole territories. The implementation of the knowledge, the specific studies and the documentation programs, also constitute the main basis for the exercise of critical and interpretative activities, in order to training and to develop a particular settlement, city or area. Besides, they are also useful for the expectation of the necessary specific planning for the conservation and the improvement, that are aimed at promoting the conscious development of human activities in that places. This international conference aims at comparing the experiences made in this scientific area, that have allowed the development of operational methods for researches useful for the correct understanding of both the architectures and the historical and archaeological complexes. Furthermore, it also aims at taking into consideration the cultural and environmental contexts of the contemporary history, giving essential advices for a critical reading and a proper evaluation about the conservation actions for this important heritage.

BETWEEN EAST AND WEST

# BETWEEN EAST AND WEST

TRANSPPOSITION OF CULTURAL SYSTEMS  
AND MILITARY TECHNOLOGY OF  
FORTIFIED LANDSCAPES

EDITED BY  
SANDRO PARRINELLO  
STEFANO BERTOCCHI  
GIOVANNI PANCANI

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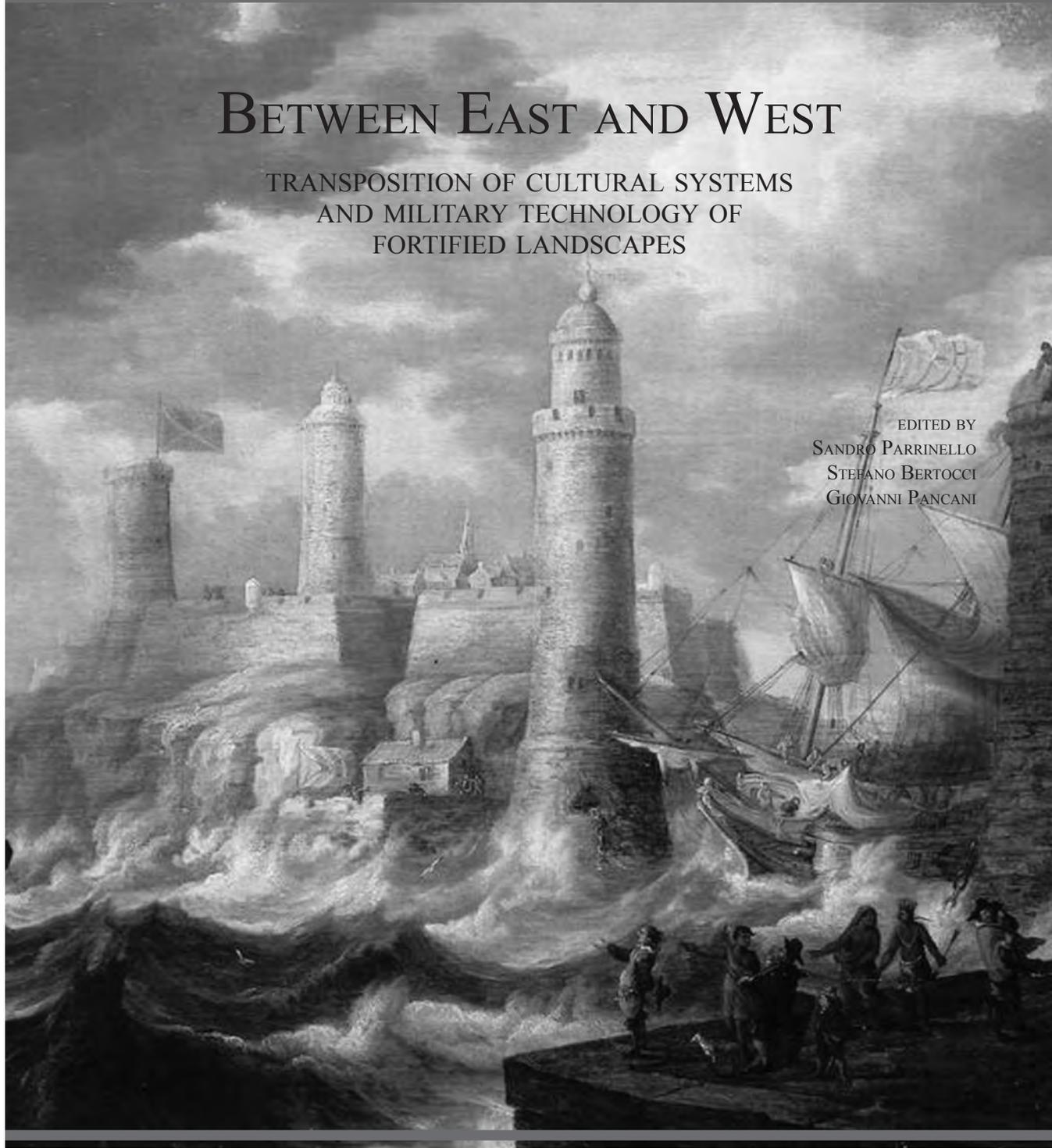
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## STUDY OF ARCHITECTURAL AND DECORATIVE STYLES OF THE SACRED ENVIRONMENTS INSIDE THE CRUSADER DONJONS AT PATERNÒ AND ADRANO

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**Keywords:** *Donjon, 12<sup>th</sup>/13<sup>th</sup> century, Valley of Simeto (Sicily-Italy), artistic documentation*

The occupation of Sicily by the Normans began in Messina and was conceived right from the beginning as a reconquering and liberating operation from the Muslim domination. Consequently, in 1069 the Normans are honoured with the privilege of being considered vassals for the Holy See and earned the recognition of their feudal rights in Southern Italy.

The Donjons of Paternò and Adrano together with the Donjon of Motta S. Anastasia, built around 1072 by the Norman Count Ruggero D'Altavilla, with the purpose of over-riding the Muslim rebellion in Catania and spreading their control over the whole of the Valle del Simeto, demonstrated an important element of the sophisticated system of attack and at the same time defence of territory, a common practice by the Normans in their conquered territories.

On the inside of these military structures, the presence of a religious setting, which could be a church or chapel, has a particular political-religious meaning and has taken on a role of primary importance in the christian settlement scene, firstly in Southern Italy and then with the Crusades in the Middle East.

The constant reference to architectural models in common with the East and West is demonstrated for example by the little chapels present in the two Donjons of Paternò and Adrano, morphologically different one from the other, but with the same architectural, pictorial and sculptural characteristics found in Crusade churches and chapels present in Northern Europe, Southern Italy and the Petra and Near East territories. The churches are generally located, in the fortification setting, in a corner wall which forms part of the defensive wall curtains. The small apse, also located in the thickness of the wall, is semi-circular in shape and usually has a loop-hole in the centre and small lateral niches.

The access to the Donjon chapel of Paternò is through a door with a pointed arch, the keystone bearing a bas-relief depicting the Agus Dei with cross, in Romanesque style; this was the symbol of St. John the Baptist. The chapel, measuring 3.95 x 6 m, was built at the beginning of the 12<sup>th</sup> century with the construction of a partition wall (80 cm thick) and with an apse facing east. This space, illuminated by a loop-hole that opens onto the north side of the castle, originally was lower of three steps with respect to the entrance.

It has a single-apse ogival nave built in the thickness of the thick wall, covered by a barrel vault and the holes on it are orifices of upside-down clay amphoras.

The vault, originally painted blue, was decorated with wooden stars shaped with six or eight points covered in solid gold, fixed to the walls by studs which are also made of gold. The use of this technique, together with the use of albumen egg tempera on dry plaster, suggests that the realization of the paintings may have been carried out by workers used to working on mosaics and miniatures. Probably those masters of transition



*Ogival apse, the Donjon of Paternò.*



*Saints warriors on horseback symmetrically side by side and separated by Archangel Michael, the Donjon of Paternò.*



*Main entrance of the chapel of the Donjon of Adriano.*

working after the fall of Jerusalem in 1187, came from the convent of Santa Maria della Valle di Josaphat or from the Commenda di San Giovanni Gerosolimitano, both not far from the castle.

The restoration carried out between 1990 and 1991 have unearthed a series of archaic christian paintings which have no empties or undertones in the polychrome figurative system, aesthetically reminiscent of similar systems of installations of holy warriors found in the mosaics of Monreale and Cefalù, in the Palatine Chapel and the Martorana in Palermo and in the frescoes of the cycle of the Norman Priory of Sant' Andrea in Piazza Armerina, as well as a few other examples in South Italy and Normandy<sup>1</sup>.

The implicit political-religious symbolism that emerges from the inaccessible wall staticity with figures abstractly represented in the usual frontal pose and in a state of sustained hieratic stillness also in the dynamic functions just mentioned, gives us deeper understanding of the atmosphere in this chivalric period during which the 5<sup>th</sup> Crusade in the Holy Land and in Sicily was being fought and how we can observe the thriving building activity of castles and forts carried out by Frederick II of Svevia; through these thematics we can understand the military character of the paintings. Not all the pictorial cycle belongs to the same period and to a single hand, indeed, delays and multiple interventions are announced by the emerging stylistic and chromatic dissimilarities; the coats of arms are results of much later additions and, perhaps, some of the figures could have been realized in the late thirteenth century; but overall the magnificent iconographic cycle is from the first quarter of the 13<sup>th</sup> century. The chapel of the donjon in Adriano located on the second floor, has a dimension of about 4x7 m and has a single nave, with the apse facing east and built inside the wall. The nave covering is made up of two ribbed cruises. The keystones in bas-relief bear the Greek Cross, a symbol of the Gerolosimitano Knightly Orders. The same bas-relief can be seen above the central lancet window of the apse. The capitals of the semi-circular columns, where the cruises and the arch of apse are grafted, have a naturalistic type of molding with small coupled leaves arranged in two tiers.

The chapel, today can be seen to be plastered, with mural painting on the apse, where the Christ Pantocrator is held up by angels. The original entrance of the chapel is located on the side through a doorway with lancet arch on semicircular columns and capitals with floral themes.

The architectural structure and the architectural elements on the inside of the two chapels, undoubtedly recall the Norman Crusade architecture in the Middle East, and it is therefore interesting to compare with the Crusader chapels of the Wu'ayra, Shawbak, Kerak regarding the Transjordanian territory<sup>2</sup>, the church of Krak des Chevaliers in Syria, the church in the fortress of Safilta in Israele and the entrance hall way to the castle of Cesarea with ribbed vaults with ogival arch, as well as to the magnificent Sicilian churches.

The research expeditions conducted on Crusader castles by Professors Bini and Bertocci from the *Dipartimento di Progettazione dell'Architettura di Firenze* together with the *Dipartimento di Studi Storici e Geografici* show the distribution of building types and construction types common in the territories invaded by the Norman Crusaders; the contamination appears evident in the construction techniques, architectural typologies and the decorative elements. Considering the findings which highlight the apparent distribution in the Mediterranean area of such building typologies, this would, therefore, be a field of considerable interest for future researches.

#### NOTES

<sup>1</sup> In Normandy, fragments of painting dating back to the second half of the XII century, are present in the churches of Saint-Jean-le-Thomas (Manche), di Norrey-en-Auge (Calvados), a Mont-Saint-Michel, a Cerisy-la-Foret, a Caen, a Falaise and in the choir of Manéglise (Seine-Maritime).

<sup>2</sup> BERTOCCHI S., *Il rilievo e la documentazione dei castelli crociati di Wu'ayra, Habis e Shawbak in Transgiordania* in BERTOCCHI S., BINI M. 2009, *Castelli medievali a Petra e nel Vicino Oriente tra rilievo e archeologia*, pp.43-61.

#### REFERENCES

AGNELLO G. 1961, *L'architettura civile e religiosa in Sicilia nell'età sveva*, Roma.

DI MATTEO S. 1976, *Paternò, nove secoli di storia e di arte*, Palermo, GE Edizioni.

MIGNECO MALAGUARNERA F. 1995, Gli inediti dipinti murali del castello di Paternò, in Andaloro M. *Federico e la Sicilia dalla terra alla corona. Arti figurative e arti suntuarie*, Volume 2, Ediprint, Palermo.

BINI M. 2005, *Il Castello di Gisors. Resoconto della Campagna di Rilievo per la Ricerca Tipologica e Funzionale*, 1 ed. Alinea Editrice, Firenze.

BERTOCCHI S., BINI M. 2009, *Castelli medievali a Petra e nel Vicino Oriente tra rilievo e archeologia*, Società Editrice Fiorentina, Firenze.



*The nave of the chapel of the Donjon of Adrano.*