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Дэвид борборун долбоорлоо жана куруу: Италиянын Тиррен жээгиндеги шаарды жана архитектуралык кайра өнүктүрүү долбоору

Аннотация. Бул изилдөө Macchione & Guga Archdesign Studio архитектуралык фирмасы тарабынан ишке ашырылган Италиянын Тиррен аймагындагы Носера Терринезе жээгиндеги Дэвид борборунун долбоорлоосуна жана курулушуна арналган. Курулуш жана реконструкциялоо долбоору италиялык архитектуралык салтты камтыган, ал тарыхты жана улуттук өзгөчөлүктү урматтоо, көнүү жөндөмдүүлүгү жана туруктуу өнүгүү баалуулуктарына берилгендик менен мүнөздөлөт. Аралаш методдор менен изилдөө контексттик анализди, фотографиялык жана визуалдык этнографияны жана кызыкдар тараптарды баалоону камтыды. Изилдөө көрсөткөндөй, классикалык жана заманбап дизайн менен архитектуралык салттын ортосунда көпүрө болгон курулуш жана реконструкция долбоору жашыл өткөөл, туруктуу туризм жана маданий эс тутумдун принциптерине негизделген Италиянын Улуттук калыбына келтирүү жана туруктуулук планына ылайык келген. Баасы 12-18 миллион еврого бааланган долбоор 200гө чейин курулуш жумушчу орундарын түзүп, жылдык туристтердин агымын 150 000 зыяратчыга чейин көбөйтүп, жылына 3-6 миллион евро чыгым алып келиши мүмкүн. Долбоордун күтүлгөн өзүн актоо мезгили 10 жылды түзөт, анын ичинде экономикалык стимулдаштыруу, маданий жана капиталдык өзгөчөлүктү жандандыруу, улуттук жана эл аралык каржылоого жетүү, билим экономикасында байланыштарды түзүү сыяктуу бир катар материалдык жана материалдык эмес пайдаларга жетишилет. Долбоордун тобокелдиктерин жашыл курулуш стандарттарын сактоо, ЕБ биргелешип каржылоо мүмкүнчүлүктөрүн колдонуу жана кызыкдар тараптарды тартуу аркылуу азайтууга болот. Алынган натыйжалар Тиррен жээгинин экономикалык жана туристтик потенциалын реконструкциялоо жана жандандыруу боюнча долбоорлорду пландаштырууда колдонулушу мүмкүн

Негизги сөздөр: Жер ортолук деңиз архитектурасы; туруктуу дизайн; маданий мурас; чыгаша-пайда талдоо

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Проектирование и строительство Центра Давида: проект городской и архитектурной реконструкции на Тирренском побережье Италии

Аннотация. Данное исследование посвящено проектированию и строительству центра David Center в прибрежном городе Ночера-Терринезе в Тирренском регионе Италии, выполненному архитектурным бюро Macchione & Guga Archdesign Studio. Проект строительства и реконструкции воплотил итальянские архитектурные традиции, которые характеризуются уважением к истории и национальной идентичности, адаптивностью и приверженностью ценностям устойчивого развития. Исследование, основанное на смешанных методах, включало контекстуальный анализ, фотографическую и визуальную этнографию, а также

оценку заинтересованных сторон. Исследование показало, что проект строительства и реконструкции, выступающий в качестве моста между классическим и современным дизайном и архитектурной традицией, соответствовал Национальному плану восстановления и устойчивости Италии, основанному на принципах «зеленого» перехода, устойчивого туризма и культурной памяти. Проект с предполагаемой стоимостью 12-18 млн евро может создать до 200 рабочих мест в строительстве, увеличить годовой туристический поток до 150 000 посетителей и принести 3-6 млн евро в год в виде расходов. Ожидаемый срок окупаемости проекта составляет 10 лет, в течение которых будет получен ряд материальных и нематериальных выгод, включая стимулирование экономики, возрождение культурной и капитальной идентичности, доступ к национальному и международному финансированию и установление связей в сфере экономики знаний. Риски проекта могут быть минимизированы за счет соблюдения стандартов экологического строительства, использования возможностей софинансирования со стороны Европейского союза и вовлечения заинтересованных сторон. Полученные результаты могут быть использованы для планирования проектов реконструкции и возрождения экономического и туристического потенциала Тирренского побережья

Ключевые слова: Средиземноморская архитектура; устойчивое проектирование; культурное наследие; анализ затрат и выгод

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Design and construction of the David Center: An urban and architectural redevelopment project on Italy's Tyrrhenian coast

Abstract. This study was elaborated on the design and construction of the David Center in the coastal town of Nocera Terinese, in the Tyrrhenian area, Italy, by the Macchione & Guga Archdesign Studio. The construction and redevelopment project embodied the Italian architectural tradition, which is characterised by respect for history and national identity, adaptability, and adherence to sustainability values. A mixed methods study incorporated contextual analysis, photographic and visual ethnography, and stakeholder assessment. The study revealed that the construction and redevelopment project, acting as a bridge between the classical and modern design and architectural tradition, was in line with Italy's National Recovery and Resilience plan resting on the principles of green transition, sustainable tourism, and cultural memory. The project with an estimated cost of EUR 12-18 million can generate up to 200 construction jobs, increase annual tourism flows by up to 150,000 visitors, and generate EUR 3-6 million per year in spending. The project's estimated payback period is 10 years, during which a repertoire of tangible and intangible benefits will be generated, including economic stimulation, revitalisation of cultural and capital identity, access to national and international funding, and establishment of knowledge economy linkages. The project risks can be minimised through an adherence to green construction standards, utilisation of the European Union's co-funding opportunities, and stakeholder engagement. The obtained results can be used to plan redevelopment projects and revitalise the economic and tourism potential of the Tyrrhenian coast

Keywords: Mediterranean architecture; sustainable design; cultural heritage; cost-benefit analysis

Introduction

Despite a considerable potential encapsulated in the South Tyrrhenian coast of Italy, part of its tourist infrastructure remains undeveloped. A historically rich, yet underutilised, coastal area requires

construction and redevelopment projects that would stimulate its economic growth and act as landmarks blending modernity with cultural heritage. There is a need for the centre that will serve as a multifunctional hub for civic engagement, innovation, tourism, and sustainable living. The development of Italian architecture, as stated by E. Dellapiana & F. Bulegato (2020), was preconditioned by the “architetto integrale” philosophy coined in 1921 by Gustavo Giovannoni. G. Bonaccorso (2022) described “architetto integrale” as an approach to training the all-encompassing professional that combines the roles of an architect, urban planner, historian, and restorer. While using the Islands of Rhodes-Kos-Leros as a context, M. Fotini *et al.* (2025) further pointed out that the all-encompassing architecture was used as a tool to emphasise Italy’s influence on a particular region. This influence was observed through major changes in the urban landscape, restructuring of historical centres, and improvements in the road network. The all-encompassing nature of the Italian architectural tradition was also underlined by O. Longo (2024) who argued that in the Cold War period, it underwent major transformations of dematerialisation. As explained by O. Longo, dematerialisation implies rejection of compositional processes based on the composition of forms, with a simultaneous focus on the user’s emotions and perceptions.

M. Folin & E. Svalduz (2024) asserted that Italian architecture could be seen as one of the ways to preserve and promote the national identity. They mentioned that the architectural tradition was not static and suggested exploring it through numerous transformations, conversions, and adaptations. M. Senthil (2024) pointed out that the key features of Italian architecture reveal the peculiarities of the epoch they were created in. For example, the Renaissance period examined by M. Senthil was characterised by the return to classical ideals taking the forms of domes and central plans, like in the Florence Cathedral dome. The period was also characterised by geometrical clarity, with an emphasis on rationality, use of mathematical grids, and focus on perspective to organise space. S. Rescic *et al.* (2024) suggested that materiality and craftsmanship was another considerable feature of Italian architectural tradition. As explained by S. Rescic *et al.*, this feature, in particular, involved the use of local materials like the travertine in the Tuscany region. Noteworthy, the tradition dating back to 900-100 BCE has not lost its relevance to date. In addition to the mentioned features, Italian architectural tradition is characterised by its adaptability, which, for example, involves considering geohazard features of a particular area. This idea was illustrated by D. Casalbore *et al.* (2024) who compared geohazard features of the Cilento and the Calabro-Tyrrhenian continental margin in the southern Tyrrhenian Sea. D. Casalbore *et al.* concluded that the major hazards were related to coastal landslides and shelf-indenting canyons. The mentioned hazards should be taken into consideration when planning some construction on the Tyrrhenian coast.

The aim of this study was to explain the design and construction process of the David Center, which is an urban and redevelopment project on the southern Tyrrhenian coast. The aim involved accomplishing such objectives as conducting the contextual analysis of the design phase, creating the centre’s identity, and planning the construction operation. An accomplishment of these objectives will facilitate the construction process to reshape the area, create new workplaces, attract more tourists, and revitalise the entire area.

Materials and Methods

The mixed-methods research study utilised a repertoire of tools, including the socio-economic impact assessment. The assessment was applied to model potential effects of constructing David Center on employment, tourism, housing, and cultural industry. The assessment helped to identify whether the construction of David Center, on the Tyrrhenian Coast was relevant and expedient. The project’s relevance was assessed in terms of its ability to meet the target audience’s socio-cultural (a new place to visit) and economic (employment opportunities) needs. The project was also assessed through the cost-and-benefit analysis, where quantitative predominance of benefits indicated the construction’s expediency. The research also involved conducting the contextual analysis of constructing the David Center. The data was collected through political, economic, social, technological, environmental and legal (PESTEL) analysis of the factors shaping the construction process in this particular part of Italy. The data for the PESTEL analysis was retrieved from a range of sources, including the following: National

Recovery and Resilience Plan (Italia domani..., 2022), the Organisation for Economic Co-operation and development (n.d.), Centro Studi Investimenti Sociali (CENSIS, n.d.), and Smart City Observatory (Digital Innovation Observatories..., n.d.). The factors were further classified as triggers of launching the project or hindrances to constructing the David Center. Such classification would help to articulate the risk response strategies if the cost and benefit analysis revealed the construction is feasible.

For constructing the David Center, a Crystal Ball (Oracle, n.d.) simulation was employed to enhance the accuracy of the project's financial and risk assessments. By integrating Monte Carlo analysis into the construction cost and revenue forecasting model, key variables such as material costs, labour rates, permitting timelines, and occupancy rates were assigned probability distributions based on historical and market data. The simulation ran thousands of iterations to generate a realistic range of potential outcomes, providing stakeholders with insight into best-case, worst-case, and most likely scenarios. This probabilistic approach enabled the author to identify critical risk factors, allocate contingency budgets precisely, and make informed decisions to ensure the financial sustainability and timely completion of the David Center.

In addition to the mentioned methods, this research applied the stakeholder categorisation method based on the power-interest matrix. The stakeholders were identified based on the preliminary analysis of the projects comparable to the David Center's construction, including the National Museum of the 21st Century Arts (MAXXI, n.d.), Museum of European and Mediterranean Civilisations (Ricciotti, n.d.) and Fondazione Prada (n.d.). The detected stakeholders were assessed in terms of these criteria: interest/role – stakeholders' major focus; interest level – the extent to which stakeholders are involved in the project; and influence – stakeholders' ability to shape the project. Once stakeholders were detected, their involvement in the construction project was examined in terms of Kurt Lewin's change model. The model suggests that any transformation, including the construction of a new site, is a multi-phase process involving “unfreezing”, the change itself, and “refreezing” (Anjum *et al.*, 2024). These stages of the transformation were taken into consideration when planning the strategies to involve stakeholders in the construction of David Center on the Tyrrhenian Coast of Italy.

Results

Toward contextualising the construction of the David Center

The Calabrian Tyrrhenian coast, forming the southwestern edge of Italy's peninsula, has been a strategic and cultural gateway for millennia. Ancient Greek colonies like Locri and Rhegium laid early urban foundations, later fortified and expanded by the Romans, who introduced advanced engineering and urban planning concepts such as roads, aqueducts, and amphitheatres (Creedy, 2024). Throughout the Middle Ages, the region witnessed waves of Byzantine and Norman rule, each leaving distinctive marks on settlement patterns and architectural styles – from robust hilltop castles to Romanesque cathedrals and monasteries nestled in the rugged terrain (Olivadese & Dindo, 2024). The coastal towns, shaped by their proximity to the sea, have historically balanced commerce and defence, with tight street grids, central piazzas, and religious landmarks that reflect communal life centred around family, faith, and maritime trade.

Italian architecture itself has continually adapted to these shifting historical and social dynamics. The Renaissance era revived classical Roman principles, celebrating human scale, perspective, and harmony, visible in grand cathedrals and civic buildings (Hu, 2024). The Baroque period added theatricality and ornamentation, while the 20th century brought rationalism and a modernist ethos that sought to reconcile tradition with innovation (Del Sole, 2024). In Calabria, this architectural evolution is often visible side by side: ancient stone structures coexist with neoclassical villas and post-war urban expansions, all set against the dramatic backdrop of the Tyrrhenian Sea and coastal hills. Contemporary redevelopment initiatives, like the David Center, draw on this deep historical reservoir, striving not just to build new facilities but to weave modern functions into the historical urban fabric. By respecting local building materials, historical forms, and the socio-cultural identity of Calabrian communities, such projects aim to regenerate the coast sustainably while honouring centuries of architectural legacy.

The construction of David Center, a multi-purpose cultural and commercial hub, is preconditioned by a repertoire of factors, including political, economic, social, technological, environmental, and legal. Political factors are considered positive since construction, redevelopment, and infrastructure projects have become the national government's priority. According to the National Recovery and Resilience Plan, the Italian government encourages regional development and sustainable tourism, especially along underutilised coastal zones. The Campania Region, which received EUR 2.3 billion for infrastructure upgrades, can serve as an illustration of government support for construction and redevelopment projects. The data retrieved from the National Recovery and Resilience Plan allows assertions that the David Center can count on government support, since its strategic aims align with such priorities as green transition, tourism infrastructure, and cultural revitalisation (Italia domani..., 2022).

In contrast to predominantly positive impact of political factors, social factors can act as either triggers, or hindrances to the implementation of the David Center project. A significant positive factor is that the Tyrrhenian coast is home to deep-rooted cultural traditions, historical towns, and UNESCO World Heritage Sites (Organisation for Economic Co-operation and Development, n.d.). The Tyrrhenian coast also has a strong regional identity that has become a magnet for tourists from the country and across its borders. Considering that the Tyrrhenian region is vast, it is challenging to approximate the number of annual tourist visits, which makes it advisable to consider data on specific areas and sites. The data allows concluding that if the David Center meets the target audience's expectations, demands, and values, it will be visited by a considerable number of tourists. The examination of demographic factors further revealed that some Tyrrhenian regions, including Calabria, Campania, and partly Lazio, face aging populations, labour migration to northern cities, and low birth rates (CENSIS, n.d.). Considering these factors, the construction project might experience workforce shortages.

When planning the construction project, it is taken into consideration that technological factors differ considerably across specific areas of the Tyrrhenian coast. Some cities, including Rome and Naples, act as urban hubs, with 5G networks, fibre optics, and smart city initiatives (Digital Innovation Observatories..., n.d.). These cities attract tourists who are looking for smooth experiences, like booking a hotel, renting a car, or searching information about a specific place. Local communities, government and non-government organisations, and other stakeholders invest into the region's technological development. This idea can be illustrated by the 2023 Banda Ultra Larga (BUL) plan aiming to expand high-speed broadband access in under connected regions of Sicily and Calabria by 2026. Strategic planning of the David Center project acknowledges that some rural and coastal areas of the Tyrrhenian coast have slow broadband and weak mobile coverage, which might require additional investment in the infrastructure redevelopment. The task is to study the feasibility of such investment in terms of short and long-term returns. The coastline, which is characterised by a mix of rocky cliffs, sandy beaches, and inlets, might be considered picturesque for visitors. Investors, however, keep in mind that the Tyrrhenian coast is vulnerable to rising sea levels, coastline erosion, saltwater intrusion, and storm surges that are particularly frequent in Lazio, Campania, and Calabria (Gioia & Guadagno, 2024). Environmental risks can be examined in the context of Ostia, where increasing storm intensity and sea erosion have damaged parts of the coastline. The damaged coastline can be a major problem for local businesses that need to invest in coastal walkways construction to create a safe zone for visitors.

Furthermore, legal factors might have an impact on the construction of the David Center on the Tyrrhenian coast. The project planning relies on the fact that the Tyrrhenian coast includes marine parks, coastal reserves and Natura 2,000 sites acting as habitats for Europe's most valuable and threatened species (The Natura 2000..., 2023). Considering this, Natura 2,000 sites are protected by both the European Union (EU) and Italian law, which means that any construction near or within these zones is heavily regulated, and obtaining a permission might be a daunting task (Sovinc & Krzic, 2025). The statement can be illustrated by the Uccellina Park in Tuscany, acting as a protected coastal zone, which means that any development near this area might undergo ecological compatibility testing. Since David Center is situated near a sensitive zone, the construction is

launched only after a Strategic Environmental Assessment (SEA) or Environmental Impact Assessment (EIA). Considering existing regulations, it is advisable to have early coordination with the Italian Institute for Environmental Protection and Research (ISPRA). The contextual analysis revealed a repertoire of factors that can hinder the construction of David Center in the Tyrrhenian Coast. With this idea in mind, it was decided to conduct the cost-benefit analysis to calculate the feasibility of the project. The rough estimates are based on the assessment of similar construction projects, such as Ravello Arts and Music Center (Villa Rufolo), Fondazione Prada, Manifattura Tabacchi, and Parco Archeologico di Paestum. The benefits of constructing David Center are reflected in Table 1.

Table 1. Benefits of constructing David Center of the Tyrrhenian Coast

Category	Description	Example(s)
Economic stimulation	Job creation, tourism revenue, regional GDP growth	100-200 construction jobs, 50+ permanent jobs. Estimated 50,000-150,000 visitors/year depending on programming. Potential EUR 3-6 million/year in direct and indirect local spending
Cultural capital and identity	Prestige, international attention, cultural programming	If hosting art, performance, or innovation residencies, could elevate town/city to “destination” status (e.g., like Ravello or Matera)
Access to funding	EU cultural, climate, or regional development funds	Horizon Europe, Creative Europe, REPowerEU or PNRR can co-finance up to 60-80% of energy-efficient cultural projects
Environmental leadership	Use of sustainable design may set new local benchmarks	Solar power, rainwater systems, and green roofs can cut emissions, improve microclimate, and offer demonstration value
Knowledge economy linkages	Research, education, creative start-ups	If integrated with academic institutions or start-ups (e.g., like Manifattura Campana), may attract talent and innovation partnerships

Note: GDP – gross domestic product

Source: compiled by the author based on Oracle (n.d.)

The Table 1 suggests that construction of David Center can generate both direct and indirect benefits. Direct benefits including tourism revenue and GDP growth. In turn, indirect benefits stem from the revitalised area that offers a range of opportunities for its visitors and citizens. The planning, however, acknowledges that the David Center construction process involves various costs, the key of which are documented in Table 2.

Table 2. Costs of constructing David Center of the Tyrrhenian Coast

Category	Description	Example(s)
Capital investment	Land acquisition, construction, design, materials	Coastal land in regions like Lazio or Campania can cost EUR 300-600/m ² . High-end, sustainable design (e.g., glass, solar, smart systems) increases initial costs
Environmental compliance	EIA, permits, ecological safeguards	EIA and planning approval may cost EUR 100,000-250,000. Delays due to protected zones or marine parks (e.g., Maremma, Aeolian Islands)
Infrastructure development	Roads, utilities, digital connectivity in semi-rural zones	If built in underdeveloped areas, fibre internet or drainage upgrades may require EUR 1-3 million
Operating and maintenance	Staffing, facility upkeep, marketing, utilities	Annual O&M estimated at EUR 400,000-750,000 depending on scale and automation
Risk factors	Natural disasters (floods, erosion), bureaucratic delays	Coastal erosion may require long-term reinforcement Risk of permit rejections or changes in regional planning laws

Note: EIA – Environmental Impact Assessments; O&M – Operations & Maintenance

Source: compiled by the author based on Oracle (n.d.)

The Table 2 suggests that the costs and risks of constructing David Center on the Tyrrhenian coast are numerous, and still do not outnumber potential benefits. Based on the simulation analysis, the total costs of constructing David Center stand at EUR 12-18 million, including total construction and start-up costs (EUR 8-12 million) and cumulative operating costs (EUR 4-6 million). The

simulation also helped to calculate total benefits standing at EUR 33-56 and including tourism and local economy benefits (EUR 30-50 million) and EU grants and/or subsidies (EUR 3-6 million). In terms of the net benefit estimate, the construction project can generate EUR 15-44 million over a 10-year period, depending on a particular site, project scale, and success of programming. The contingency planning might help minimise risks and reduce construction and operation costs.

Construction plan of David Center

The construction project was inspired by the story of King David who ruled the United Kingdom of Israel and Judah in approximately c. 1,000 BCE. B. Putrawan *et al.* (2023) pointed out the ambiguity of King David's character, which fuelled public interest in his personality. On one hand, he was known as the founder of the Judaean dynasty, which united all Israeli tribes under a single monarchy, which indicates his charisma and leadership potential. On the other hand, King David is known for his affair with a married woman Bathsheba whose husband fell victim of the ruler's lust. As explained by B. Putrawan *et al.*, King David killed Bathsheba's husband to marry the woman. N. Sebola (2024) attributed the ambiguity of King David's personality to the fact that the man did not appear in vacuum, but rather his decisions were shaped by interactions with two types of characters – divine and human. His thought-provoking story inspired many artists, including Michelangelo whose masterpiece is considered a perfect example of Italian Renaissance sculpture. A 5-meter marble statue displayed in the Galleria dell'Accademia in Florence attracts and delights numerous visitors.

The intention to construct a multi-purpose centre in honour of King David was preconditioned by several symbolic reasons. While introducing the first reason, M. Senthil (2024) emphasised Renaissance's considerable impact on architecture. Renaissance was, in particular, associated with humanism ideas that have not lost their relevance to date. Therefore, construction of David Center can be interpreted as an attempt to modernise the Renaissance idea while preserving its originality. In the national consciousness, the figure of King David is inextricably linked with Michelangelo's sculpture alluding to external beauty and perception. Such conclusions allow assuming that visitors will perceive David Center as something grand, sophisticated, and worth visiting at least once during their stay on the Tyrrhenian coast. However, King David's story also alludes to hedonistic pleasures such as delicious food, nice service, and numerous leisure activities. In knowledgeable visitors' minds, David Center will be associated with pleasant leisure, which is considered a good strategy to target diverse population groups. Considering the aforementioned adaptability of Italian design and architecture tradition, the architectural theme of David Center can be articulated as follows: "David Center – the place where land meets culture". The centre's major theme is reflected in Figure 1.

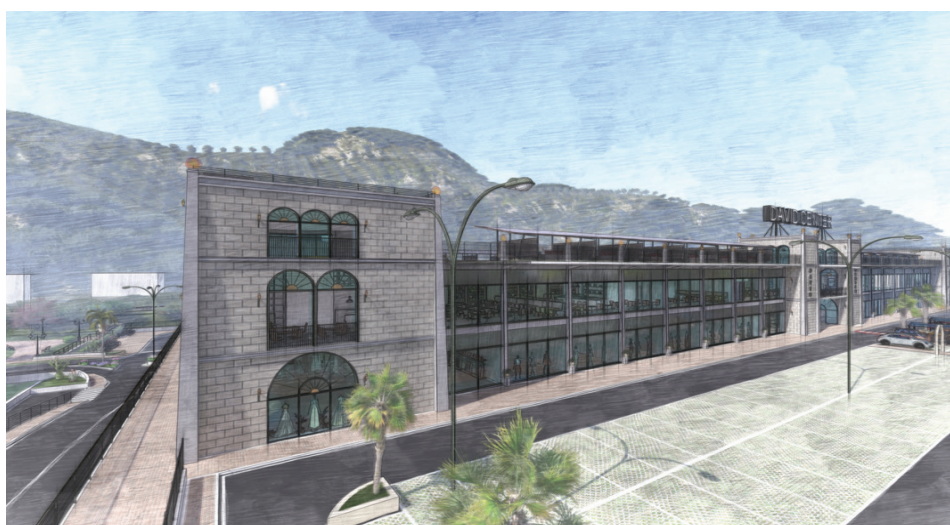


Figure 1. Façade of David Center

Source: Macchione & Guga ArchDesign (2019)

Based on the Figure 1, David Center is seen as a symbolic point of nature, culture, and modern functionality inspired by the Mediterranean forms. Located in an Italian coastal town, David Center perfectly fits into the region's natural landscape of the sea and hills. The stone façade with arched windows and iron balconies are consistent with the Italian Riviera design language. Large windows not only let in plenty of sunlight, but also draw visitors' attention to surrounding beauty. Palm trees around David Center's perimeter create shade that is welcome and valued in the warm and dry Mediterranean climate. Although the key idea is to make David Center part of the town's landscape, visitors' comfort and convenience is also a priority. This convenience is due to well-developed infrastructure, including modern roads, vast parking areas, pedestrian and bicycle paths, as well as street lightning. The colour palette is dominated by muted pastel tones, resembling those of the natural environment. Considering these features, David Center can be identified as a delicate balance between attempts to redevelop an area and preserve its geographical and cultural identity. The architectural language of David Center is rich and demonstrates itself through Mediterranean historicism, contrast, and integration. The Mediterranean historicism, in turn, reveals itself through natural stone facades suggesting durability and regional integration. The texture of the stone is sympathetic to traditional Italian masonry, as it is seen in Figure 2.



Figure 2. Mediterranean historicism in David Center's architectural language

Source: Macchione & Guga ArchDesign (2019)

The Figure 2 suggests that Mediterranean historicism is also revealed through the repeated use of arched windows on the stone-clad sections. Rhythm is another prominent feature of the building, which is reflected in the façade that is well-articulated with vertical divisions and light-and-shadow interplay. This interplay is created by recesses and columns that have been popular in the Italian architectural tradition since the Renaissance. In Neoclassic architectural tradition, columns and recesses are used not only for decorative purposes, but also as abstract symbols of order and rationality. Simple and laconic columns used in the construction of David Center serve as a symbolic bridge between classical and modern approaches to construction. Hence, David Center manages to preserve traditions, without losing its modernity. The architectural language of David Center also incorporates contrast and integration as it is seen in Figure 3.

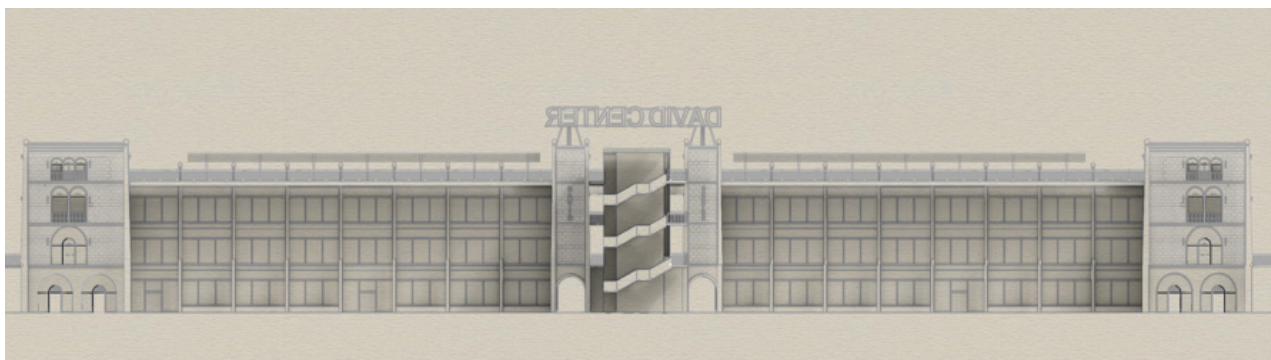


Figure 3. Contrast and integration of David Center’s architectural language

Source: Macchione & Guga ArchDesign (2019)

The Figure 3 suggests that the modern architectural language of contrast and integration is, in particular, revealed through the use of the glass curtain wall. The central zone of the building uses a large glazed façade, articulating the idea of transparency and visual connection between the interior and the public realm. One important message behind the glass curtain wall is that everyone is welcomed to immerse into David Center’s vibrant atmosphere. Furthermore, the element of contrast and integration takes the form of horizontal emphasis: the consistent roofline and street-level glazing create a horizontal visual axis balancing the vertical mass of the corner columns.

The functional zoning of David Center is also significant for articulating the architectural message and attracting the target audience. It is suggested to divide the space into four functional zones: left section, central section, rooftop utility, and right side. A 3-floor left section will act as a commercial zone encompassing gallery and event spaces. The central glazed section will be used as an activity hub with cafes, co-working spaces, and educational rooms. The key features of this section include high ceilings and open interiors for flexible programming. The glazed section will also help maximise natural light and increase the street-level visibility. The rooftop utility encompasses such elements as a large swimming pool, open-air lounge, terrace, solar areas, and shading photovoltaic pergolas. This section of David Center will also include the green roof area performing aesthetic and sustainability functions. The rooftop section is the place where visitors can take a break from the noisy city life and admire the landscape. The right side of the building has the tower featuring “David Center” signage functioning as a landmark element to enhance visibility and orientation. Figure 3 suggests that circulation between floors of a particular section is carried out by elevator, while circulation between the sections is carried out by electric stairs. The staircase transition is glazed for both aesthetic and practical purposes, since the use of solar energy is in line with sustainability goals and values. The right side of David Center contains the main entrance atrium, where reception and information hub are located. Sustainable development is seen as the main idea behind David Center’s architectural language and design. An adherence to sustainability norms and values is reflected in Figure 4.



Figure 4. Sustainable development philosophy as reflected in David Center’s interior design
Source: Macchione & Guga ArchDesign (2019)

The Figure 4 suggests that interior patios have become an inalienable element of David Center’s design. These patios are frequently accompanied by water features to enhance the centre’s microclimate in a sustainable way. Photovoltaic shading panels over glass zones make another integral element of David Center’s design; such panels help to reduce glare and maximise heat gain. In addition to the mentioned elements, David Center incorporates a wayfinding system for multilingual and accessible navigation. Therefore, David Center represents a fine balance between the classic architectural tradition and contemporary sustainable development philosophy. Construction of David Center requires a multidisciplinary cooperation between stakeholders documented in Table 3.

Table 3. Stakeholder matrix

Stakeholder	Interest/Role	Influence	Interest level
Local residents	Quality of life, jobs, environmental impact	Medium	High
Local government (municipality)	Urban planning, tax revenue, local development	High	High
Investors	Return on investment, project viability	High	High
Construction companies	Contract execution, timelines, safety	High	Medium
Tourists/visitors	Access to services, attractiveness of facilities	Low	Medium
David Center management team	Operational goals, branding, long-term sustainability	High	High

Source: compiled by the author based on MAXXI – National museum of the 21st century arts (n.d.), Fondazione Prada (n.d.), R. Ricciotti (n.d.), A. Sutar & G. Yogapriya (2022)

The Table 3 suggests that the David Center involves a diverse group of primary stakeholders whose engagement is critical to the project’s success. Local residents are central, with high interest in employment opportunities, environmental protection, and quality of life, necessitating inclusive community engagement. The local municipal government plays a pivotal role through its authority over planning, infrastructure, and regulation, requiring sustained collaboration. Financial stakeholders and investors are focused on return on investment and long-term viability, demanding transparency and solid business planning. Construction firms are responsible for timely and efficient project delivery under strict safety and performance standards. Tourists, while less directly involved, represent a vital target group whose satisfaction will influence the project’s sustainability. At the core, the David Center’s internal management team drives strategic planning and operational execution, holding high influence across all phases. Coordinated interaction with these stakeholders is essential to ensure economic viability, regulatory compliance, and social acceptance.

Kurt Lewin’s change model was counselled to engage primary stakeholders in constructing and facilitating operation of David Center. The first phase of the engagement process involves

“unfreezing” aimed at creating awareness of the project and its ability to address their needs. Depending on stakeholder types, “unfreezing” strategies can range from conducting focus groups, through alignment of internal leadership with shared vision and strategic outcomes, and to involving in early planning. At the second phase of the change process, construction of the David Center takes place. The transformation itself takes various forms, including collaboration with residents, formalisation of public-private partnerships, arranging transport progress reporting, conducting stakeholder workshops, and launching pilot tours. The final stage – “refreezing” – is aimed at solidifying stakeholder commitment through public celebration of milestones, establishing feedback loops, embedding changes into the corporation’s policy, sustaining community engagement, and providing regular feedback.

Hence, the study provided considerations for the construction of David Center as an embodiment of Italian architectural tradition. The contextual analysis confirmed the feasibility of constructing the multi-purpose centre to increase tourist inflows and revitalise the Tyrrhenian coastal area. The considerations concerned the integral elements of the conceptual model, architectural message, interior and exterior design, as well as compliance with the ideas of preserving cultural identity and facilitating sustainable development. The study also conducted stakeholder analysis and provided recommendations to enhance stakeholders’ engagement in the project.

Discussion

The David Center construction project rests on an idea that design and architecture possess a symbolic language to represent and preserve national identity. This idea was, for example, elaborated in the message behind the building’s conceptual design: “David Center – the place where land meets culture”. For Italian visitors, David Center is not only a multi-purpose space, but also the place where they can feel their belonging to a centuries-old and unique culture. The connection between the national identity and conceptual architectural design was also studied in previous research, including M. Alnaim (2024). By relying on the methods of architectural connotation and cultural theory, the author stressed that architecture can be seen as a culturally impacted response to climatic, cultural, and social conditions. Considering this, M. Alnaim suggested taking a deeper look into the cultural legacy in architectural identity and urban design. His suggestion is consistent with the conceptual design of David Center, especially, an intention to integrate the building into the natural landscape of the sea and hills by using area-specific construction materials and natural colour range. The glazed facade of David Center can also be seen as a reflection of national values, such as adaptability and aspiration for sustainable development. A. Kakale *et al.* (2024) further stressed that the relationship between natural identity and architectural tradition is mediated by a community’s perceptions of landscape scenes. Some of these perceptions are nation-specific, while others are intercultural. The presence of intercultural elements in the design concept and architectural language allows assuming that the idea behind David Center will be understandable not only for Italian but also overseas visitors.

The study also elaborated on the idea that architectural tradition might be preconditioned by a repertoire of external factors, including political, economic, social, technological, environmental, and legal. An in-depth analysis further revealed a two-way relationship, meaning that architectural projects can also precondition the rise and evolution of some external factors. This assumption was, for example, tested in the context of new workplaces and tourist inflows generated by the construction of David Center. Similar conclusions were found in the study of H. Herath *et al.* (2021) who investigated the impact of socio-cultural and economic factors on the development of architectural taste. Based on a scrupulous quantitative and qualitative data analysis, they concluded that particular socio-economic factors, including age, religion, and financial status tend to have varying impacts on architectural taste. The results of H. Herath *et al.* partly coincided with the introduced findings, in particular, suggestions to examine social factors before taking a decision to construct David Center. The cited findings can be used as additional evidence that construction of David Center and redevelopment of the area can revitalise coastal areas that are now facing economic stagnation, outflow of workforce, and aging population. The accumulated evidence emphasises that investment in construction and redevelopment interventions can yield medium and long-term benefits.

The study also introduced the idea that environmental factors play a considerable role in the choice of architectural solutions. As for the David Center project, this idea can be examined in the context of the glazed façade that helps to make the most of the natural light that is abundant in the Mediterranean climate. In cold climates, for instance, buildings are designed with an intention to retain heat, while in hot and arid climates the major task is to provide shade and promote natural cooling. This consistency is detected in the architectural solutions for David Center, such as the construction of a glazed façade, interior patios, and green areas. For example, a study by B. Cherkes *et al.* (2024) emphasised the critical role of architectural and urban planning in shaping and maintaining urban identity, linking it to the preservation of cultural heritage, social cohesion, and economic growth. This work highlighted how physical components of the urban environment, such as buildings and structures, actively contribute to a sense of identity and belonging for residents and visitors.

The study further concluded that implementation of the David Center project demanded stakeholder engagement, which justified the significance of using stakeholder matrix. The matrix helped distinguish between different groups of stakeholders and assess their involvement in the design and construction process; the idea was that higher levels of stakeholder engagement preconditioned effective construction. Further analysis of previously conducted studies, including Y. Li *et al.* (2024) confirmed the significance of stakeholder involvement for architectural decision-making. Upon conducting a systematic review of 110 research articles, they concluded there was a statistically significant positive correlation between stakeholder involvement and preferences in landscape protection decision-making. The discovery of Y. Li *et al.* is consistent with the current research suggesting that Italian architecture is characterised by high adaptability, and construction projects undergo environmental assessment before implementation. Finally, the study made a considerable contribution by providing suggestions to plan and implement the construction and redevelopment initiatives to uncover the architectural potential of the Tyrrhenian coast.

Conclusions

This study examined the feasibility, design, and stakeholder dynamics of constructing the David Center as an emblematic urban and architectural redevelopment project on Italy's Tyrrhenian coast. The research underscores that the David Center is more than just a physical infrastructure; it is a cultural and economic catalyst capable of revitalising an underutilised coastal area by blending contemporary sustainability principles with Italy's profound architectural heritage. One of the study's major findings is the affirmation of political and institutional readiness to support regional redevelopment projects, as evidenced by alignment with Italy's National Recovery and Resilience Plan, which prioritises green transition, tourism, and cultural revitalisation. Predicted data retrieved through the Crystal Ball simulation suggested that the centre could generate significant direct and indirect benefits, including the creation of up to 200 construction jobs, dozens of permanent positions, increased tourism flows of potentially up to 150,000 visitors annually, and a regional economic stimulus estimated at EUR 3-6 million per year in spending.

The architectural concept itself stands out as a respectful yet forward-looking interpretation of Mediterranean architecture, merging stone façades and arched forms with large glazed surfaces and green rooftops. This approach honours Italy's tradition of "architetto integrale" – the holistic integration of architecture with history, landscape, and community. The study confirmed that careful attention to local climatic conditions, geohazards such as coastal erosion, and the broader environmental context is crucial; hence, sustainable features like photovoltaic shading, interior patios with water elements, and green roofs have been embedded in the design. Moreover, the stakeholder matrix and application of Kurt Lewin's change model reveal that sustained, transparent engagement of local residents, municipal authorities, investors, and visitors is indispensable to ensure the project's social acceptability, minimise opposition, and foster a sense of ownership. Another significant insight is that the project aligns with broader trends in adaptive and intercultural architecture, making it a potential benchmark for future developments along similar coastal regions. By connecting the narrative of King David with contemporary design, the centre symbolically bridges Italy's Renaissance legacy and experiential, sustainable tourism demands. While cost projections – of EUR

12-18 million – are substantial, the expected returns, European Union co-funding opportunities, and intangible benefits to cultural prestige and local identity considerably outweigh the financial risks if managed prudently. Future research should undertake a longitudinal impact study once the David Center is operational, evaluating real-world socio-economic, cultural, and environmental outcomes to refine best practices for similar coastal redevelopment projects.

Acknowledgements

The David Center project was selected by an international jury during a presentation held in Nanjing (China) on the occasion of the 500th anniversary of Leonardo Da Vinci's death, at the ICAS 2019 conference organised by the Nanjing University of Aeronautics and Astronautics and the Academy of Fine Arts in Florence.

Funding

The publication of this article was funded by the Catholic University of Our Lady of Good Counsel.

Conflict of Interest

None.

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