Problem statement. Natural heritage today has become endowed with many public policy expectations, some of which are concerned with sustainable development not least at the territorial. However, although natural heritage possesses many economic dimensions and plays many roles in sustainable territorial development strategies only rarely are economic considerations paramount in the selection and management of natural heritage resources and only rarely is natural heritage the main support or justification for sustainable development. Herein lies the ambivalences in this reluctant relationship between natural heritage as a ubiquitous, flexible and multi-used resource and the many instrumental roles it is expected to play in, largely territorial, sustainable development policies. Natural heritage is place-bound and is a major contributor to the identification of people with specific places, it becomes inextricably involved in territorial place images, identities and economic geographies. Natural heritage, therefore, is frequently called upon to perform many instrumental roles in, largely territorial, sustainable development strategies as commercial activity in itself, as a location factor for other economic enterprises, as a contributor to environmental amenity and territorial identity, as a constituent of place image promotion and branding, and as a frequently catalytic element in neighborhood regeneration. However, all these expectations are
based upon a resource that was not created for these purposes, is not necessarily managed by agencies sympathetic to them, and which itself may be intrinsically an obstacle to sustainable development though the restrictions on change it imposes, the resources it consumes and fossilizes and above all the backward-looking mentality it may engender amongst those who seek refuge from the challenges of the present and the future.

Therefore, this article will consider the possibilities and constraints stemming from this ambivalence, by examining and exemplifying the economic components of the natural heritage and outlining the economic models that are assumed to determine the natural heritage outcome at the territorial level. Natural heritage has an economic dimension that is quite basic to the activity if only because natural heritage costs money but also may earn money. There is thus inherently an economics of natural heritage that is fundamental to the selection of resource elements, their subsequent maintenance, interpretation, packaging, marketing and use management, even if those engaged in many of these activities would vehemently deny that economic justifications were paramount or even existed. In addition, natural heritage is used as a primary resource in many commercial industries, in which aspects of a commodified nature are selected and packaged into products for sale on various contemporary markets, including but not confined to tourism and recreation markets. It is also indirectly used in the construction of high amenity physical environments that may act as location factors for economic activities as well as endowing places with extra value, expressed in real estate prices or just a sentiment of well-being. Natural heritage also often plays a major role in the shaping and promotion of place images on internal and external markets, often in support of economic goals that may have little direct concern with nature.

**Analysis of recent studies.** The most significant in this area are substantial publications of G.J. Ashworth, J. Friedman, M. Hampton, R. Mason, L. Meskell, A. Peacock, C. Pert, I. Rizzo, A. Mignosa, E. Avrami, R. Mason, M. Torre etc. However, despite the presence of individual publications in this area, important issues of theoretical and methodological foundations of economic interaction of sustainable development and heritage remain virtually unexplored, especially in the domestic economic science, which determines the high degree of relevance of this study in the light of the special social significance of this problem.

**The aim of article** is consideration of the main problems of economic interaction of natural heritage with sustainable territorial development in the context of property and utilitarian relations on natural heritage resources as well as ways to overcome these problems in modern economic science.

**Presentation of the main material.** Natural heritage as a responsibility of governments and a concern of their citizens is an extremely recent phenomenon. Most of the legislation, governmental and non-governmental agencies, official subsidy and taxation structures have been created over the last century-and-a-half in order to satisfy a quite specific collective political and social requirement. The current consensus of official and popular support for natural heritage has the same basic justification. Economic uses were added subsequently and are of secondary importance. The point needs emphasis because designated sites, districts, objects and landscapes were not created for economic reasons and economic considerations were not decisive or even present at all in their creation.

It is only subsequently that economic uses have been added to the demand for the consumption of natural heritage, sometimes fortuitously and sometimes deliberately out of a reluctantly accepted economic necessity. Tourist uses of natural heritage in particular are often treated as a barely tolerated marginal use for natural heritage sites and places, which have been identified, selected, designated, maintained and interpreted for quite other groups and purposes [9, p. 25-39]. Tourists and saleable natural heritage products are endured for the marginal income or a possible justification through visitor numbers, that may be obtained from them but most existing heritage would continue to exist, albeit with fewer financial resources, in the service of its primary purposes if the economic function completely disappeared [12]. Indeed many institutions and individuals involved in the natural heritage process regard the intrusion of economics into their endeavors as, at best a distasteful necessity to be reluctantly tolerated, or, at worst, a distracting and even unwelcome commercialization of their undertakings.

Although many involved in the preservation and interpretation of natural heritage resources would rather ignore the economic dimension, they are confronted by the simple imperative that these activities cost money, an inconvenience that may be offset by its potential to earn money [8, p. 169-171]. However, the apparent symmetry of costs and benefits in the above statement is illusory as a result of the contexts in which natural heritage exists. Much official natural heritage is a public good in which public woodlands, places and sites, conserved natural territories and landscapes are freely accessible and zero, or near zero, priced facilities, whose consumption cannot be denied. However, although free to many natural heritage consumers, it is costly to create and maintain. The initial protective natural heritage designation may appear to cost next to nothing: it involves just the adding of a structure or area to a list, the cost of drawing a protective line upon a map or erecting a sign. Indeed much of the inflation that has occurred
in monument and natural heritage district designation lists in countries through the world over the last years can be explained by this seductively cost-free demanding designation process, which normally occurs at some political level of government. In reality, however, such designation brings with it a political and moral commitment to preserve, restore and maintain into infinity. Also generally ignored are the less direct costs of natural heritage, including the alternative development opportunities forgone on what are often the most potentially valuable natural sites and the concomitant restrictions on the adaptation of objects, areas and even wider landscapes to changing social and economic circumstances. Restricting the capacity to change can be a serious constraint upon the continuous evolution of territories. This locking up and economic circumstances. Restricting the capacity to receive a preservation designation. An economic mortgage is taken out on the future, to provide for what the present perceives to be its needs, to be paid by the sterilization of scarce natural space and the fossilization of natural forms and morphologies as well as by a financial burden on future public and private funds [10, p. 369-372].

However, and seemingly in fortuitous compensation, natural heritage seems to offer a potential to make money in a number of different ways, directly and indirectly as discussed below. It is notable that attitudes to the role of natural heritage, like the wider idea of nature in general, within economies have dramatically shifted. It may be that it is the completeness and abruptness of this role reversal that accounts for the reluctance and unease of many in being involved. Also, simply those creating and maintaining the natural heritage resources are often not the same people as those engaged in releasing its economic potential. The managers of the potential natural heritage resources often find it difficult to apply economic concepts and approaches to the natural heritage experience or indeed to natural goods and services in general. They regard themselves as the custodians of natural riches, with a responsibility to maintain and bequeath objects, sites and landscapes intrinsic worth even to a society that seems to be unaware and even uncaring. Thus there has been a reluctance among natural heritage professionals to think in economic terms or place their activities within an economic context, for which they are usually unfamiliar, untrained and often unsympathetic.

All natural heritage needs investment for its maintenance and the realization of its potential utility for whatever purpose. It is possible to view this investment in natural heritage in much the same way as any other economic investment, namely a objects, areas or landscapes is preserved and renovated by an investing owner who then reaps the profits from the enhanced value of the asset.

However, when considering especially built environmental heritage, there are complications to this otherwise straightforward link between investment and return. First, the costs of building and area preservation, renovation and restoration are front-loaded, that is most of the investment must be made long before any returns are obtained and may only be repaid over many years or even centuries. Such long-term and, intrinsic to heritage, intentionally intergenerational repayment renders it economically illogical for the individual to invest. Incremental investment to partially save or restore is rarely possible and deferring investment may raise costs or even render the project impossible. Second, as mentioned earlier, those making the investment and those reaping the profits are unlikely to be the same. However, even more fundamentally, both costs and benefits accrue more widely than just to those who own or are responsible for the natural heritage. Because much natural heritage is produced and consumed as a public merit good consumption cannot be restricted to those who pay for it and equally consumption may actually be compulsory as no-one can exclude themselves from experiencing built environments, whether such experiences convey positive or negative feelings. As with much environmental investment the economic externalities, whether benefits or costs, accruing to a wider society are often more important, and indeed may be the justification for the investment, than the internalities. This simple condition lies at the heart of the balance between public and private interests, which in turn has determined the nature of decision making in policies for using natural heritage in sustainable territorial development.

Consider the fundamental issue of private property ownership, which bedeviled attempts at public intervention in the natural environment in Europe for almost a century, delaying protective legislation and public subsidy. Indeed the issue remains unresolved in North American jurisdictions. Simply the judicially protected, and in some countries constitutionally supported, right of owners to an unfettered use and disposal of property made state intervention in the collective interest legally impossible. The compromise eventually arrived at in most Western European countries, and enshrined in legislation around the turn of the nineteenth and twentieth centuries, was to separate the private right to use and enjoy from the public right to preserve and bequeath. The ostensible confiscation of some private control by the state was compensated by public subsidy: the state, in effect, bought out some of the rights of private property in the common good.

This characteristic of investment in potential natural heritage whereby private and collective costs and
benefits are interlinked through externalities has a major influence upon the decision to invest. The rational process of the decision to invest in the preservation of natural heritage property may be explained by the simple idea of the ‘neighbor’s dilemma’. Two neighbors are considering whether it is financially worthwhile to invest in renovating their properties. If one does and the other does not, the investing neighbor receives a return from the value added to the property but this is depressed by the continued non-renovated condition of the neighborhood. The investor suffers a loss while the non-investing neighbor reaps an unearned profit from the partially renovated neighborhood [10, p. 376-378].

There are two rational strategies. The first is to do nothing and hope that your neighbor invests: the second is for both to agree to invest together thereby reaping the external as well as internal profits. So far in this story only the costs and benefits to the individual have been considered, the third party is the community, which can be assumed to have an interest in neighborhood renovation and is presumably represented by some local government agency. Only rarely will such agencies have the financial resources to invest themselves in preservation and even if they had the use of public finances to increase the value of private assets would need justification. In most cases, the role of the public sector is to create the conditions that encourage the individual owners to invest in their property. This may involve no more than the formal designation of a natural heritage or natural district, a line on the map, which declares the intent of a public authority. This alone may reassure the individual that private investment will be profitably secure and that the externalities are likely to be positive rather than negative. The act of designation can be enhanced by promotional measures such as a suitable naming of the area, by attention to public objects and infrastructure. Thus this “neighbor’s dilemma” lies at the core of area development and preservation issues especially for natural districts. Public intervention is thus justified by increased collective benefit, by redressing territorial market failure, by reconciling private and public economic interests and distinguishing between individual and collective costs, benefits and responsibilities.

In the choice between public or private investment for property and area preservation it is, of course, in theory possible for the state to assume exclusive responsibility, in the collective interest, in a political system where private ownership of property does not exist or is severely curtailed. This avoids the ‘neighbor’s dilemma’ described above and directs preservation effectively to exactly where it is desired and presumably also to whom the benefits will accrue. Apart from the political and legal difficulties of such a state monopoly of funding and subsequent uses, the magnitude of the funds required normally preclude this happening on any substantial scale. The opposite extreme position would be for the state and its agencies to play no part in the process, leaving it entirely to private profit seeking investors who both take the risks and reap the benefits. This abrogation of financial responsibility also implies an inability to influence where such preservation occurs and who benefits. In particular private financial speculation is likely to result in social change among property users and in districts whose property improves or deteriorates, rising or falling in value, taking no account of any public policies for economic or social area redevelopment. Public authorities thus effectively cease to engage in area management. Most natural areas preservation over the last 50 years throughout most of the world has functioned through some compromise between these extremes. The government’s dilemma is to obtain private risk-taking investment, while avoiding or mitigating what it regards as the undesirable social consequences of such investment. The role of the state has been to devise policies, generally at the territorial level, that protect the public interest through measures to limit or mitigate the negative external effects of private preservation investment. Intervention here tends to be in the form of regulations and constraints such as rent controls, resale restrictions, security of tenure, legal right of return and the like. The danger, of course is that if such antisculation measures have little effect then they are futile but if they are effective then they restrict the rights of owners and investors thus lowering the value of property, which in turn discourages the investment [5, p. 739-740].

One common form of direct public intervention was for the public authority to play the role of the investing neighbor by operating rolling programmes of the purchase, preservation and resale on the free market of individual natural objects in the hope that this would send a positive signal to the market and encourage an imitation by private investors. A number of European countries, for example, have nationally funded preservation funds of this sort, while in the British Isles of private conservation trusts which again attempted to lead the market by example and again play the role of the initial investing neighbor in the model [11, p. 294].

However, there is a false sense of inevitability in the idea, which seems to suggest that the costs of preservation and maintaining natural heritage districts for the common good can quite easily be undertaken by private investment, as steered by public authorities. This sounds too good to be true, and it is. The illusion of automatic success was fostered from the experiences of individual Western European, North American and Australasian territories from the late 1960s though to the 1990s. This period followed the enactment of natural heritage area legislation in much of the Western world, which shifted
the focus of intervention from the natural object to the natural area and from the aesthetic and natural justifications to economic and social functional ones. The changes in approaches to local area planning and management were accompanied by an increasing popular and political support for territorial conservation [1, p. 26-31].

Suspicion about such statements should be aroused by the simple question of why logically this should occur. The designation of a object or an area as "natural" normally imposes constraints on use, which should lower the utility and thus value of the object or area. If this seems not to have happened then this aberration needs explanation and there has been much speculation about valuing preserved natural structures [6, p. 45-49].

The most widely encountered approach to using natural heritage resources and facilities especially at the territorial level could be called the "windfall gain model" in which existing natural heritage, maintained and served non-economic purposes, are utilized in addition for economic purposes. This can be viewed as a windfall gain because a marginal benefit is obtained without extra cost. Its attraction is that economic use obtains what appears to be a free resource, while the resource managers obtain what appears to be a marginal cost-free benefit. However this win-win situation is dependent upon a number of assumptions. First, it presupposes that the additional economic demands can be accommodated alongside the other already existing demands without competing with, displacing or reducing the value of the natural heritage experience to other consumers. Much of the friction between users at the scale of the local site, and much of the concerns of site management, can be traced to the partial incorrectness of this assumption. Second, it also assumes that the additional marginal use does not damage, diminish or change the resource upon which multiple uses depend. Third, it is implied that the addition of the economic use is conditional upon the above two assumptions being correct and, if they are proved not to be in practice, then there is an acceptance that the economic use will be monitored and regulated such that other users will be prioritized. This model also raises the issue of free-ridership (i.e. gaining benefits from a resource whose costs are borne by another), although who is riding free depends upon how the model is interpreted in a given situation. An economic enterprise may freely use a natural heritage facility created and maintained for other purposes: alternatively, a natural heritage enterprise may generate economic returns that maintain a facility in existence for the free use by others. Both situations can exist simultaneously [10, p. 352-356].

At the level of the individual natural heritage facility, it may not appear to matter much who consumes or why they are consuming the service and experience on offer. The critical variable becomes the customer or visitor numbers or expenditures. It is these figures that provide the economic returns or less directly the political justification for the facility. The dangers of this 'turnstile model', however, are that it assumes that it is the same product that is being consumed in the same way and for the same reasons by each customer.

If natural heritage is conceived to be the commodification of the nature, then a tradable product for sale on present markets is created from what was previously non-tradable structures and sites. This can be viewed as an industrial assembly model which combines resources, products and markets. Within this model three processes occur, namely, resource discovery and activation, product assembly through resource selection and product packaging, and product delivery to final consumer markets. Such a model accommodates and explains some of the significant characteristics of natural heritage when viewed as a product range. In particular, it illustrates the vertical disintegration of the different stages in the process whereby different agencies are responsible for different phases in the process. It remains however something of an abstraction for two reasons. First, no such integrated assembly system actually exists: The three processes of which it is composed are performed by at least three groups of actors namely, the resource caretakers, the product assemblers and the market managers. Those operating at these different stages of the model often have little interest in, or even awareness of, each other, having different working practices and are usually quite differently motivated. Second, although the model is useful in stressing the essentially market rather than resource driven characteristic of natural heritage, there is a marked difference in this respect between the two sides of the assembly process. The demand side of the model is certainly market driven but the supply side rarely recognizes this, with the resource providers assuming the existence of intrinsic object-based values rather than ascribed society-based market values. From this discrepancy stems much of the lack of understanding and often friction between those operating at the different stages of the model [3, p. 72-78].

Natural heritage can be used as an economic enterprise; as part of a wider set of natural industries producing distinctive natural goods and services for sale. In this respect it has a distinctive local geography of production. It has identifiable spatial location factors, distinctive industrial structures of production, patterns of employment and traceable inter-firm linkages and networks. Natural heritage enterprises can thus be planned and managed as other services enterprises in the public interest by using the distinctive characteristics of the industry. These include the prevalence of small enterprises each handling specific stages in the production and delivery pro-
cess and a dependence on specialized labor pools, a feature typical of both service industries and tourism. These characteristics of production reinforce an often highly localized, spatial dimension leading to a marked spatial clustering.

The tourist use of natural heritage could be regarded as only a specialized travel industry market consuming a particular set of natural goods and services. However, its economic importance, both locally and beyond, demands special attention and has generated much political and academic interest. Suffice it here to add that the main economic problem with the commodification of nature for tourism lies in the discrepancy between internalities and externalities of costs and benefits already discussed. Many of the primary tourism resources experienced by visitors are public goods, freely accessible at zero-cost. The economic returns from tourism are dominantly indirect, accruing to the secondary tourist support services. This imbalance of internal and external costs and benefits is also compounded by discrepancies of spatial scale in that many of the costs may occur at the territorial scale as externalities, while much of the benefit may be reaped as internalities outside the territory [7, p. 129-134].

The way tourism as a user of natural heritage is viewed depends upon the viewpoint. Natural heritage provides a flexible, ubiquitous and inexhaustible resource that is ideal for the creation of place-bound tourism products for ever-expanding leisure markets. The tourism industry, with low start-up costs and labor-intensive activities, seems to offer local economic benefits generated from resources that largely already exist and are often otherwise underused. Equally tourism can be viewed as a parasitical free-rider and potential despoiler of natural resources that it has not created and financed and does not manage, displacing other more worthy users and creating high external costs for many who receive no benefit from the activity. These largely irreconcilable viewpoints account for both the almost ubiquitous presence of tourism in local strategic sustainable development policies as well as its prominence as a local political issue [5, p. 735-759]. The resolution depends upon the priorities set by territorial governments and place managers.

Natural heritage may be a variable, whether positive or negative, in the location decision of other economic enterprises and of potential residents. The existence of conserved districts and landscapes, objects and natural heritage structures, and even just the idea that a place is important from a natural point of view, may be an environmental amenity attractive to potential residents. Such natural heritage may also be attractive to economic enterprises both indirectly through the enhanced residential amenity for employees but also and more directly if the enterprise can capitalize upon the place association with naturalness and even upon the visitors that such naturalness may attract. Whether naturalness of place associations are beneficial or detrimental will depend largely upon the nature of the product or service being produced. Equally however the restrictions on use, adaptation and traffic circulation imposed by preservation designations upon areas are a cost to residents and enterprises and the natural place associations may not be appropriate and profitably transferable to the firm.

The link here between the built environmental heritage and sustainable development is through place identity. Here it is assumed that specific localities to varying degrees possess a quality called identity, that is that the people who use this place, or even imagine it from a distance, identify with it in some way, and that this quality may confer a universal benefit in the form of a public good by its very existence. This is the “identity dividend” [4, p. 294-301]. Such a dividend, whether economic or psychic, is expected to emanate from ‘identity-rich’ regions and be automatically conferred upon their inhabitants and other users of such places. Governments have frequently assumed the role of encouraging the creation of strong local identities because of such assumed public benefits and heritage has generally been the most important instrument in such policies.

Strongly related to place identity is the use of natural components within place-marketing and place-branding strategies. All such strategies share the common element of attempting local differentiation: making one place different from another in the imagination of the consumer. The idea that pasts are distinctively local and unique explains why heritage associations are frequently used to promote places, and not only on tourism markets. Preserved objects and areas, are seen as reinforcing the uniqueness of the place-product selling point, almost regardless of the nature of the product [2, p. 167-172].

Finally in this list of the uses of natural heritage in sustainable development, there are a few cases where natural heritage has been used to reshape fundamentally the economy of a place through becoming in itself the dominant economic sector. Examples such are notable for both their success but also their rarity. Such cases are usually the result of a sudden and drastic failure in the local economy necessitating a complete reorientation. They also require much good fortune in time and place and are nearly impossible to replicate elsewhere. Much more widespread is the use of natural heritage indirectly, through its contribution to a broad-based amenity and environmental quality. Natural heritage in its many expressions may all contribute to area regeneration even when the sustainable development has little directly to do with nature. Although it was made clear at the outset that natural heritage is an experience rather than an object, many of the arguments expounded above have in practice been overtly or covertly concerned
with the built environment of objects and natural heritage districts. Of course, natural heritage meanings can be communicated by many other means including natural sites, geological artefacts, relief and landscape. However even though any or all of these can play some role in the economic regeneration of local areas, it is natural spaces and morphologies that have had the most obvious, long-term and substantial impact upon such policies [8, p. 309-321].

Natural heritage offers many possibilities for use in sustainable territorial development strategies but is also constrained by many limits. There is a school of thought that contradicts the whole argument of this article by not only dismissing any possible role of natural heritage in solutions to economic regeneration but by viewing it as a significant part of the problem. In these arguments natural heritage is a cost both directly through the financial resources it consumes and more importantly indirectly through the opportunity costs foregone and the obstacles to sustainable development it imposes though the restrictions that preservation designations entails on objects and areas. More broadly natural heritage is viewed as a constraint that fossilizes the existing morphological patterns and land uses and even more seriously engenders a backward looking mentality that focuses upon the former state of nature, which is the antithesis of the forward looking future orientation intrinsic to sustainable development.

Conclusions. It is still worth remembering that although natural heritage possesses many economic dimensions and plays many roles in sustainable territorial development strategies, only rarely are economic considerations paramount in the selection and management of the resources from which it is created and only rarely is natural heritage the main support or justification for sustainable development. Almost all natural heritage is maintained to fulfill contemporary political and social needs for legitimation and socialization and it would continue to exist even if it had no economic significance. Also, it must be reiterated that many of the actors involved in the process of natural heritage resource preservation, natural heritage product packaging and even promotion and consumption are not motivated by its economic potential and may even be averse to the very idea of its use for economic gain. Nevertheless, and for whatever reason it was created it offers ubiquitous, flexible and mutable resources rendering it in many ways an ideal instrument of sustainable territorial development. This is usually most effective in combination with other management instruments where nature often plays a catalytic role by shaping a natural and distinctive place identity within which wider sustainable development policies can operate successfully. It must always be remembered, however, that natural heritage is inevitably about choices and in sustainable territorial development and the regeneration of areas this involve choices of objectives and instruments. Natural heritage may, but equally does not have to, be chosen to be among either the goals or the tools.

REFERENCES:
PROBLEMS OF THE ECONOMIC INTERACTION OF THE SUSTAINABLE DEVELOPMENT OF TERRITORIES AND NATURAL HERITAGE

Today the natural heritage has become endowed with many public policy expectations, some of which are concerned with sustainable development not least at the territorial. The natural heritage possesses many economic dimensions and plays many roles in sustainable territorial development strategies only rarely are economic considerations paramount in the selection and management of natural heritage resources and only rarely is natural heritage the main support or justification for sustainable development. Natural heritage is frequently called upon to perform many instrumental roles in, largely territorial, sustainable development strategies as commercial activity in itself, as a location factor for other economic enterprises, as a contributor to environmental amenity and territorial identity, as a constituent of place image promotion and branding, and as a frequently catalytic element in neighbourhood regeneration. Therefore, this article will consider the possibilities and constraints stemming from this ambivalence, by examining and exemplifying the economic components of the natural heritage and outlining the economic models that are assumed to determine the natural heritage outcome at the territorial level. Natural heritage in territorial sustainable development operates alongside and possibly in competition with the cultural, social, and political objectives, a competition in which it is unlikely to be prioritized. Natural heritage has an economic dimension that is quite basic to the activity if only because natural heritage costs money but also may earn money. There is thus inherently an economics of natural heritage that is fundamental to the selection of resource elements, their subsequent maintenance, interpretation, packaging, marketing, and use management, even if those engaged in many of these activities would vehemently deny that economic justifications were paramount or even existed. In addition, natural heritage is used as a primary resource in many commercial industries, in which aspects of a commodified nature are selected and packaged into products for sale on various contemporary markets, including but not confined to tourism and recreation markets.