

IUS ROMANUM

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ХИГИЕНАТА И ОБЩЕСТВЕННОТО ЗДРАВЕ КАТО КОНКРЕТИЗАЦИЯ НА *UTILITAS PUBLICA* В ГРАДСКАТА СРЕДА В РИМ (НА АНГЛИЙСКИ ЕЗИК)

Проф. д-р Салвадор Руис Пино

Понтификален университет в Мадрид, Испания*

Резюме: Не можем да се отрече загрижеността на римляните за регулирането на различни аспекти на околната среда в градския условия, които засягат ежедневието на гражданите, като например правилата, отнасящи се до погребването или кремацията на трупове в града, или регулирането на обществените или минералните бани, които изискват правилно снабдяване с водни ресурси, наред с други примери. За да се разбере цялата тази правна рамка за опазване на околната среда в градовете, е необходимо да се съсредоточим върху понятието *salubritas*, което се отнася до условията на хигиена и обществено здраве, необходими за нормалното обществено развитие на жителите на градовете. В този смисъл може да се каже категорично, че според нас *salubritas publica* трябва да се разглежда като особена конкретизация на общото понятие *utilitas publica*.

Ключови думи: римско право; урбанистично право; околна среда; природни ресурси; обществено здраве; обществена хигиена.

* sruizp@icade.comillas.edu

HYGIENE AND PUBLIC HEALTH AS A CONCRETION OF *UTILLITAS PUBLICA* IN THE URBAN ENVIRONMENTS IN ROME* (ENGLISH LANGUAGE)

PROF. SALVADOR RUIZ PINO, PhD

Comillas Pontifical University, Madrid, Spain**

Abstract: We cannot deny the concern of the Romans in regulating different manifestations of the environment in the urban context that affected the daily life of the citizens, such as those rules referring to the burial or cremation of corpses within the city or the regulation of the baths or thermal baths, which required a correct supply of water resources, among other examples. In order to understand this whole legal framework of environmental protection within cities, it is necessary to focus on the concept of *salubritas*, which refers to the conditions of hygiene and public health necessary for the proper human development of the inhabitants of cities. In this sense, it can be stated conclusively that *salubritas publica*, in our opinion, should be considered as a particular concretisation of the general notion of *utillitas publica*.

Keywords: Roman law; Urban law; environment; natural resources; public health; public hygiene.

* Research project "Acciones e interdictos populares: delitos públicos, delitos privados y tutela del uso público de cosas públicas", Ref: PID2021-124608NB-I00, directed by A. FERNÁNDEZ DE BUJÁN & J.M. ALBURQUERQUE SACRISTÁN.

** sruizp@icade.comillas.edu

1. Historical evolution of Environmental Law

On numerous occasions, Professor FERNÁNDEZ DE BUJÁN, A., has highlighted the need to view Law as a historical product in order to understand it with an integral vision, not only to demonstrate the height of Roman legal reasoning, but also to extract, in turn, the necessary lessons to develop, apply fairly and perfect current legal systems, whose starting point, as a common substratum, is precisely in Roman Law. In the words of the distinguished Romanist, 'there are many and varied lessons in terms of content and analysis to be learned from the study of constitutional, administrative, criminal, fiscal and international principles and rules throughout the history of the Roman political community'¹, whose influence on the history of Europe has been felt

¹ FERNÁNDEZ DE BUJÁN, A. *Derecho Público Romano*. Thomson-Civitas, 25ª ed., Madrid, 2022, 34 y ss. Vid. ALBURQUERQUE, J.M. *La protección o defensa del uso colectivo de las cosas de dominio público: Especial referencia a los interdictos de publicis locis (loca, itinere, viae, flumina, ripae)*. Dykinson, Madrid, 2002, reimpresión 2010, 27 y ss; ID., *Perspectiva histórica y jurisprudencial sobre la protección pretoria y jurisprudencial concedida a los arrendatarios de los campos o terrenos públicos (ager publicus)*. – In: *Revista Digital de Derecho Administrativo*, nº 30, 2023; ID., *Acciones e interdictos populares II: Legitimación popular y especial referencia al interdicto popular sobre la protección de los ríos públicos*. – In: *RGDR*, nº 40, 2023. ID., *Acciones e interdictos populares: legitimación popular y especial referencia al interdicto popular sobre la protección de las vías y caminos públicos*. – In: *RGDR*, nº 39, 2022; ID., *Scientific consubstantial values to the legal dogmatic and the theory of legal business*. – In: *Ius Romanum* I, 2021; ID., *The protection of rights in the framework of roman arbitration: Perspectives of Fernández de Buján, A, on the historical debt of modern arbitration, Rights of Citizens and their protection*, New Bulgarian University, Sofia, 2019; ID., *Provisions or rules of the roman administration in defense of natural resources, res publicae and the environment*. – In: *Ius romanum*, I, 2018; ID., *Algunos fundamentos y convergencias de la experiencia administrativa romana sobre el medio ambiente, los recursos naturales y res publicae*. – In: *Glossae, European Journal of Legal History*, cit., 14, 2017, 27 y ss.; ID., *Reconocimiento pretorio y jurisprudencial de la función social de los bienes destinados al uso público -res publicae in publico usu-*. – In: *Revista Digital de Derecho Administrativo*, nº 17, 2017, 141 ss.; ID., *The idea of ius, ratio, aequitas and iustitia would be associated with the idea of the useful and the convenient: Common Utility*. – In: *Ius romanum*, II, 2018; ID., *Historical and current prevalence of the roman jurisprudential principle "Tabula picturae cedere"*. – In: *Ius romanum*, I, 2022; ID., *Reflections on administrative experience ancient Rome and some instruments for defence for res publicae in praetorian law*. – In: *Law Journal of New Bulgarian University*. 4, 2013; ID., *La interrelación de interés público, interés común e interés privado en la noción de utilitas pública; Hacia un derecho administrativo, fiscal y medioambiental romano III*, Madrid, 2016; ID., *Notas referentes a la experiencia administrativa romana de protección de los recursos naturales*. – In: *Hacia un derecho administrativo*

throughout the history of the Roman Empire. whose influence on the history of Europe is perpetuated over time. Precisely, the continuous efforts of Professor FERNÁNDEZ DE BUJÁN, who has supervised more than twenty doctoral theses on Roman Administrative Law and Roman administrative and fiscal experience, have made it possible to reopen this line of research, now fully consolidated and amply recognised, which attempts to demonstrate the definitive influence of Roman Law in the development and evolution of modern Administrative Law, with a wealth of studies developed by a large school of research by Spanish and foreign Romanists and which owes FERNÁNDEZ DE BUJÁN a great debt of gratitude for his work. FERNÁNDEZ DE BUJÁN for his impetus and coordination. In this respect, the distinguished Romanist will state that ‘in this line of historical continuity, we have assumed, in short, the scientific challenge of reconstructing Roman Administrative Law as a school project that is justified not only by its historical interest, but also by what it entails in terms of the connection between Roman Administrative Law and current dogmatics, so necessary for the progress of the Science of Law’².

y fiscal romano .Madrid, , 2011; ID., Concentración y ordenación urbanística del territorio romano: colonias, conventos y municipios de la Bética. – In : *Hacia un derecho administrativo y fiscal romano*, Madrid, 2011; JIMÉNEZ SALCEDO, C. Una aproximación a la institución del defensor del pueblo, una institución democrática con un claro precedente en el derecho romano: el defensor civitatis. – In: *Hacia un derecho administrativo, fiscal y medioambiental Romano IV*, Madrid, 2021; ID., El restablecimiento del usufructo y de las servidumbres una vez extinguidos por confusión. – In: *RGDR*, 40, 2023; ID., El defensor del pueblo: institución imprescindible en el futuro del Estado social y democrático de derecho. Una perspectiva histórico-romanística. – In: *Revista digital de Derecho Administrativo*, 30, 2023; ID., Una mirada hacia la defensa cívica de los derechos: orígenes del defensor civitatis, en *Conceptos, métodos y fuentes para el estudio de la antigüedad. Líneas de investigación actuales*. Dykinson, 2023; ID., Considerations on the concept and historical-legal evolution of usucapio in Roman Law. – In: *Ius Romanum* 1, 2022; ID., Historical – juridical keys on the origin of the concept of abuse of right. – In: *Ius Romanum*, 2, 2022; ID., Reflections about confusion as means of extinction of obligations guaranteed by bond. – In: *Ius Romanum*, 1, 2021; ID., El defensor universitario como factor clave en la buena gobernanza de las universidades españolas, en *Reflexiones sobre la misión de la universidad en el siglo XXI*. Dykinson, 2021; ID., ·Some reflections regarding the consideration of the rights and obligations extinguished by confusion after the inclusion of sold legacy. – In: *Ius Romanum* 1, 2020.

² FERNÁNDEZ DE BUJÁN, A. Sistematización y reconstrucción dogmática del Derecho administrativo romano. – In: *RGDR*, 30, 2018, 13.

The interest in environmental protection, in the Spanish case, crystallised with the proclamation of the right-duty, absolutely innovative at the time, in Article 45 of the Spanish Constitution of 1978, which would be expressed in these terms:

Article 45.

1. Everyone has the right to enjoy an environment suitable for personal development, as well as the duty to preserve it.

2. The public authorities shall safeguard rational use of all natural resources with a view to protecting and improving the quality of life and preserving and restoring the environment, by relying on essential collective solidarity.

3. Criminal or, where applicable, administrative sanctions, as well as the obligation to make good the damage, shall be imposed, under the terms established by the law, against those who violate the provisions contained in the previous clause.

ELOLA-OLASO, F., points out that ‘concern for the care of the environment is not unknown in history. We find precedents of environmental law dating back to Ancient Rome. Even then, the prohibition of certain activities that could cause damage to public health, such as the pollution of water intended for consumption in cities, appeared. At that time, protection zones, monitoring systems and a system of penalties for damage caused by unlawful acts were created. In Roman law, the resources that make up the current concept of the environment were considered to be communal goods, susceptible to unlimited use by all individuals (*res communis omnium*)’³.

In this way, our Spanish legal system has been building up an idea of the right to the environment, also developed by jurisprudence, which is worth highlighting. Among all of them, due to their importance, we will refer to STC 64/1982, of 4 November 1982 (BOE no. 296, of 10 December 1982) and STC 102/1995, of 26 June 1995 (BOE no. 181, of 31 July 1995), which will establish several important principles in this field, such as the anthropocentric principle, which is of particular interest to our study. The

³ GALINDO ELOLA-OLASO, F. Sinopsis artículo 45, Congreso de los Diputados, 2003. Vid. también: MUÑOZ CATALÁN, E. El medio ambiente como bien jurídico y Derecho Humano de tercera generación reconocido desde el Imperio Romano. – In: *Revista DELOS: Desarrollo Local Sostenible*, 21, 2014.

Constitutional Court emphasises, in the first of these, that 'Article 45 reflects the ecological concern that has arisen in recent decades in broad sectors of opinion, which has also been expressed in numerous international documents. By virtue of this, the primary and exclusive objective cannot be considered to be the maximum exploitation of natural resources, the increase in production at all costs, but rather the 'rational use' of those resources must be harmonised with the protection of nature, all for the better development of the individual and to ensure a better quality of life' (FJ 3). This anthropocentric principle of the environment, thus affirmed, is again taken up in STC 102/1995 when it states that 'in turn, the "environment" includes the conditions or circumstances of a place that appear favourable or unfavourable for the people, animals or things that are in it. In short, the 'environment' consists of the set of physical, cultural, economic and social circumstances that surround people, offering them a set of possibilities for making a living. People accept or reject these possibilities, use them badly or well, by virtue of human freedom. The environment does not determine human beings, but it conditions them. It is therefore asserted that man has no environment but a world, unlike the animal. However, in the Constitution and in other texts the environment, the surroundings or the environment ('environment', 'environnement', 'Umwelt') is, in short, man's living environment in a harmonious regime, which combines what is useful and what is pleasant. In an analytical factorial decomposition, it comprises a series of geological, climatic, chemical, biological and social elements or agents that surround living beings and act on them for better or worse, conditioning their existence, their identity, their development and more than once their extinction, disappearance or consumption. The environment, on the other hand, is an essentially anthropocentric and relative concept. There is not and cannot be an abstract, timeless and utopian idea of the environment, outside of time and space. It is always a concrete conception, belonging to today and operating here' (FJ 4). In other words, our most contemporary law already recognises that the main reason why natural resources and the environment are protected is, in essence, the realisation of the human interest, manifested in multiple ways, which, we can intuit, is not only the protection of the environment, but also the protection of the environment.

Continuing with the reasoning of the Constitutional Court and also in STC 102/1995, it will be made clear that 'the environment cannot be reduced to the mere sum or

juxtaposition of natural resources and their physical base, but is the complex interweaving of the relationships of all those elements which, in themselves, have their own prior existence, but whose interconnection gives them a transcendent meaning, beyond the individual meaning of each one. It is a structural concept whose guiding idea is the balance of its factors, both static and dynamic, in space and time. In this sense, it has been configured, from a purely legal perspective and with immediate effectiveness in this field, as 'the association of elements whose mutual relations determine the environment and the real or ideal living conditions of people and societies' (European Communities' environmental programme, Communication from the Commission to the Council, J.O.C. 26 May 1972). This brings us to ecology, a young (1869) and interdisciplinary concept, which has brought a certain unity of treatment to old, scattered knowledge, from geography in all its aspects, but especially its human aspect, to the natural sciences, giving a new name to very old things. Even though it was originally devoted to the study of the relations of a specific species with its environment and, in a step forward, to the whole community of living beings that converge in a given area and under certain conditions, today it is concerned with living beings from the point of view of their relations with each other and with the environment, which in turn is condensed in the concept of ecosystem (1935), whose scope includes not only the rural but also the urban' (FJ 6).

This being the case in our Constitutional Law, we cannot maintain that Environmental Law or the protection of natural resources is something that only affects the natural or extra-urban environment. On the contrary, it is commonly accepted that, precisely because of its essentially anthropocentric character, it is something that must also be contemplated in the urban environment, thus directly affecting the rules of urban law, as far back as Ancient Rome. Thus, we can affirm with ZAMBRANA MORAL, P., that 'from the earliest times, man has used and tried to dominate the environment around him and this constant struggle has resulted in continuous aggressions and a progressive deterioration of the environment, endangering its existence. The development of urban centres will be decisive in establishing certain limits on the use (until then indiscriminate) of natural elements and the environment itself. It will be especially from that moment onwards when the need for the law to intervene to solve

conflicts derived from the concentration of people in cities (for example, the problem of waste) will begin to be felt⁴.

Therefore, entering into this field of the protection of natural resources and the environment in the heart of the city, we must begin with the natural link that exists between the latter and Urban Law, which also in Roman Administrative Law acquires a particular importance. In this respect, conceptually, we can affirm with JIMÉNEZ SALCEDO, C.⁵, that when we speak of town planning we are referring to the set of rules concerning the creation, organisation and transformation of towns, 'whose main function is to establish the general criteria on the basis of which the organisation and layout of the areas of demographic settlement should take place in order to achieve the best conditions of existence for individuals, as well as to determine the directives concerning, strictly speaking, the form of erection and modification of buildings, coordinating the integration of private buildings with public places (streets, squares, bridges, schools, markets, public lighting, hospitals, etc.)'. Therefore, our author continues, urban planning legislation seeks to create an ideal habitat for human beings to live in, a spatial unit in which values such as safety, hygiene and aesthetics are guaranteed.

Rome, obviously, practically from its foundation, was no stranger to this reality, which led, among other things, to the development, already mentioned earlier in this study, of the legal recognition of public things for public use. Thus, DíEZ PALACIOS, D., points out that 'Roman society, which in the 4th century BC still possessed the typical features of an archaic city-state despite having expanded its territory for the first time with the conquest of Fidenae in 426 BC and of Veies in 396 BC, had already experienced the creation of the public domain for centuries, even since its famous foundation. The motives behind this new urban formation, apart from being opportunistic, motivated by

⁴ ZAMBRANA MORAL, P. La protección de las aguas frente a la contaminación y otros aspectos medioambientales en el Derecho Romano y en el Derecho castellano medieval. – In: *Revista de Derecho de la Pontificia Universidad Católica de Valparaíso*, 37, 2011, 600.

⁵ "Notas sobre urbanismo en Derecho Romano" . – In: *RGDR*, 8, junio 2007. Véase también, de la misma autora, "Limitaciones urbanísticas al derecho de la propiedad privada: Una reflexión sobre la responsabilidad por daños causados por ruina de edificios" - In : *RGDR*, 17, 2011.

the search for greater protection against external attack, which was undoubtedly provided by the union of the different peoples in a single population centre, were also driven by the attainment and achievement of a certain degree of well-being not exclusively linked to a state of peace. This last aspiration could be achieved, in concurrence with many other factors, with the habilitation of the public domain (...) Thus, the old pre-civic settlements, now united by a synergetic channel in an urban group, understood the need to create places in which, as would surely have happened in the autonomous sphere of the peoples before their social organisation, the people could meet, recreate or satisfy social needs mainly related to agriculture and livestock'⁶.

In this area of Roman town planning regulations, moreover, we can only affirm with MALAVÉ OSUNA, B., that 'Roman town planning law was more the result of circumstantiality than of specific programmatic plans. That is to say, once a problem was identified, the imperial power tried to tackle it by enacting a coercive rule, which was not, however, part of a more far-reaching urban planning plan that considered the causes and weighed up the consequences as a unitary whole in the longer term'⁷. However, neither can we deny, following the opinion of JIMÉNEZ SALCEDO, C., that in Rome there existed a more than verifiable Roman Urban Law, understood as a set of Roman legal and jurisprudential references regulating the planning, organisation and disposition of urban areas⁸.

In this sense, JIMÉNEZ SALCEDO, C., will rightly state that 'urban planning has also constituted a key category for organisation, political analysis, jurisprudence and legal

⁶ DíEZ, PALACIOS, D. El dominio público de uso público romano, res publicae in publico usu: algunas notas sobre una institución de Derecho administrativo romano, cit., 5.

⁷ MALAVÉ OSUNA, B. Ciudad tardorromana, élites locales y patrimonio inmobiliario: Un análisis jurídico a la luz del Código Teodosiano. Dykinson, Madrid, 2018, 60-61. Vid. también: Id., Las estaciones de servicio y el Derecho urbanístico romano. Establos y almacenes en la red estatal de comunicaciones y transportes. – In: *RGDR*, 16, 2011; RODRIGUEZ LÓPEZ, R. La licencia urbanística y el derecho de sobreedificación, CTh, 15.1.50. – In: *Hacia un derecho administrativo y fiscal romano*. Madrid, 2011, 393-408.

⁸ "Perspectivas en torno al medioambiente urbano Especial referencia a las ruinas de edificios, incendios, basuras, inmisiones, etc."- In: *Glossae. European Journal of Legal History*, 14, 2017, 371.

praxis in relation to the organisation of life in society. Issues as essential as the health and education of citizens, as well as the way of life of human beings and their integration into cities and settlements that respect the natural environment, are directly related to the two concepts referred to: urban planning and environmental protection'. Our author does not hesitate to state that in the minds of the Roman jurists there was a concern to 'watch over the conservation of the environment and direct the legislation on urban planning to this end', with the magistrates in the Republic and the imperial curators from the Principality onwards being in charge of ensuring compliance with these regulations for the protection of natural resources, even with penalising consequences. Therefore, JIMÉNEZ SALCEDO, C., concludes that 'yesterday and today, life in cities depends on the management of resources such as land, water, crops and the quality of housing, its light, views, layout in an environment with green areas, parks, wide streets, quality of materials to avoid unhealthy deterioration, damp and other types of immissions that affect development and well-being, very different from one type of housing to another in Rome (domus et insulae)'⁹.

⁹ JIMÉNEZ SALCEDO, C. Perspectivas en torno al medioambiente urbano Especial referencia a las ruinas de edificios, incendios, basuras, inmisiones, etc., cit., 369-370. 'In this concern for the environmental context, urban planning plays a fundamental role and, directly related to it, the evolution of urban property law from its absolutely liberal conformation, representative of the strongest expression of individualism, to its social function and the coordination of respective rights for the improvement of social relations. The seed of this transformation can be found in the Law of the XII Tables, then in the Praetor's Edict and above all in the decisions of the jurisconsults of the end of the Republic and the classical period, because as society acquires a greater degree of development, the level of interdependence of individuals also increases and consequently the need to impose limits on rights in general and on the right to property in particular, always in the interest of public health, safety and hygiene and the good use of public spaces and natural and urban resources. The social function is therefore a duty that the right to property must fulfil; it must be effective both for the satisfaction of the interests of the owner himself and for those of the community. Individual utility and social function inseparably define the content of the property right over each category or type of property, and the immediate consequence is its ecological or environmental function. This character is recognised today by Article 45 of the Spanish Constitution, which imposes the rational use of natural resources, introducing the idea of sustainability into our legal system, in order to achieve the right of every citizen to enjoy a decent environment. This ecological function imposes burdens and encumbrances on the specific subjective rights of real estate property, in order to achieve the final objective of sustainable development in Roman Law and nowadays' (370-371).

We cannot, therefore, be unaware that both Greece and Rome devised urban planning models which, in the specific case of Rome, according to RODRÍGUEZ NEILA, J.F., 'following the canons of Hellenistic urban planning, applied a standard concept in city planning, based on the military camp, which is found throughout the length and breadth of its empire: a rectangular square, surrounded by walls, with four gates at the four cardinal points, giving access to two main roads (cardo and decumanus) that cross perpendicularly, marking the layout of the rest of the urban grid. In theory, the owners had to adapt the configuration of their domestic spaces to this plan, which imposed a grid layout of the plots to be built on. This is especially evident in the colonies, where the octagonal layout symbolised Roman power and its central tendency to rationalise spaces'. This being so, the relationship of Roman cities with the ecological environment, starting with the great Urbe, is remarkable and evident. Indeed, the key piece of the whole Roman socio-political organisation is the *civitas*, a concept which, as this author reminds us, cannot be understood outside the territorial context, the ecosystem in which it was inserted. Thus, the city 'exploited its resources, which ensured its greater or lesser prosperity. But often, in the case of the most important cities, it also attracted raw materials from much more distant places, even overseas. Thus many Greek and Roman cities had an environmental impact on their surrounding physical spaces. And many problems of our modern cities were already known to a greater or lesser extent'¹⁰.

Any urban settlement, as is well known, entails a necessary use of various natural resources, such as water or air, which the law must consider in order to ensure their correct use and guarantee their purity and durability. From the time the construction of a city was planned in Rome, the natural resources available to the human settlement to be established there were taken into account, with the same importance as other variables such as, for example, possible enemy sieges or assaults. Thus, according to an anonymous military treatise from the Justinian period, to which RODRÍGUEZ LÓPEZ, R.¹¹, refers, before founding a city it was necessary to examine whether the water supply was drinkable and whether it was sufficient both for all the usual inhabitants and for those who might eventually take refuge there in times of danger. If the water source

¹⁰ RODRÍGUEZ NEILA, J.F., *op. cit.*, *loc. cit.*

¹¹ *Urbanismo y Derecho en el Imperio de Justiniano (527-565 d.C.)*. Dykinson, Madrid, 2012, 52 ss.

was outside the city walls, a way had to be found for the water carriers to be able to get out even in times of danger; if not, the city construction project had to be abandoned. In the same way, it had to be considered whether the wood and stone needed for the construction were accessible or had to be brought from far away, or whether or not the nearby fields produced enough food or whether food could be transported from nearby places. Our author therefore points out that if the citizens could find other sources of subsistence there, they could go ahead with the building project; if not, it was better to abandon it.

Thus, in specific cases such as the city of *Caesaraugusta*, for example, we know that, in addition to an extensive communications network, the construction of the city would include an endowment of *ager*, that is, very considerable useful and fertile land, where agriculture and livestock farming would be very important sources of wealth, with significant advances in hydraulic infrastructures for irrigation. From a legal point of view, this was reflected in very important regulations such as the *Lex rivi Hiberiensis* of the Agon Bronze Age, which established, among other things, the irrigation shifts of the *pagi*, the cleaning and repair of irrigation ditches and the penalties for non-compliance. Thus, referring to these *pagi* or natural extensions of countryside which, in many cases, surrounded urban areas, MARTÍNEZ DE MORENTIN, M.L., in his study of the specific case of those found in the territory of the middle Ebro valley, points out how many authors, ‘when dealing with the evolution of society and environmental diversity in Roman Spain, (...) consider the *pagus* as an economic organisation that until now has not been taken into account and which should be highlighted, as it is a fundamental link in the chain of integrated management of natural resources’¹² In this way, ULPIANO, in compiling the census regulations, reminds us that the main purpose of the *pagus* was fiscal, and that it should collect a great deal of information related to its natural resources, from the number of acres of land to be tilled, the crop in question, whether it is vineyard, olive grove, other trees or meadow, whether it has pasture or woodland to be cut down. It is striking how the regulations state that trees that have dried up or vines that have died should not be included in the census for tax purposes, but if they have been cut down, the reason for this must be justified to the census taker, in what seems to be a clear aim to protect agriculture:

¹² Op. cit., 207.

D. 50.15.4. (*Ulpianus libro tertio de censibus*): pr. *Forma censuali cavetur, ut agri sic in censum referantur. Nomen fundi cuiusque: et in qua civitate et in quo pago sit: et quos duos vicinos proximos habeat. Et arvum, quod in decem annos proximos satum erit, quot iugerum sit: vinea quot vites habeat: olivae quot iugerum et quot arbores habeant: pratum, quod intra decem annos proximos sectum erit, quot iugerum: pascua quot iugerum esse videantur: item silvae caeduae. Omnia ipse qui defert aestimet.*
1. *Illam aequitatem debet admittere censor, ut officio eius congruat relevari eum, qui in publicis tabulis delato modo frui certis ex causis non possit. Quare et si agri portio chasmate perierit, debebit per censitorem relevari. Si vites mortuae sint vel arbores aruerint, iniquum eum numerum inseri censui: quod si exciderit arbores vel vites, nihilo minus eum numerum profiteri iubetur, qui fuit census tempore, nisi causam excidendi censori probaverit.*

Therefore, we cannot deny the concern of the Romans in regulating different manifestations of the environment in the urban context that affected the daily life of the citizens, such as those rules referring to the burial or cremation of corpses within the city or the regulation of the baths or thermal baths, which required a correct supply of water resources, among other examples¹³.

2. Hygiene and public health in Rome.

In order to understand this whole legal framework of environmental protection within cities, it is necessary to focus on the concept of *salubritas*, which refers to the conditions of hygiene and public health necessary for the proper human development of the inhabitants of cities. Indeed, Hypocrates had already concluded that ‘climate, winds, water quality, the incidence of sunlight or topography determined incisively the physical and spiritual configuration of human communities’. In this sense, it can be stated conclusively that *salubritas publica*, in our opinion, should be considered as a particular concretisation of the general notion of *utilitas publica*¹⁴.

¹³ Cfr. BRAVO BOSCH, M.J. La sostenibilidad ambiental en la Antigua Roma, cit., 14.

¹⁴ Vid. ALBURQUERQUE, J.M. La interrelación de interés público, interés común e interés privado en la noción de utilitas publica. – In : Hacia un Derecho Administrativo, Fiscal y Medioambiental Romano

This knowledge of the direct relationship between public health and the care of natural resources was something that had a notable influence - although it could not always be put into practice - on Roman urban development. An outstanding example of this are the writings of Vitruvio, the great architect of Augustus, who, in the words of JIMÉNEZ SALCEDO, C., would state that 'in Rome the rules concerning town planning are based on three fundamental principles: firmitas, utilitas and venustas (...) The term firmitas refers to the solidity of the construction materials and the following of rigorous techniques for the erection of buildings. Utilitas implies comfort and logic in the arrangement of places for their optimal use and exploitation. And finally, with the word venustas, Vitruvius wanted to express his desire for beauty, for compliance with a series of aesthetic guidelines such as orientation towards the light or the coordination and symmetry of the façades, the height of the buildings, etc. This ideal of beauty is a departure from the Greek way of thinking, in which the building in itself was considered a grandiose monument. In fact, venustas derives from Venus, love for the beautiful, thus expressing a more elegant and concrete concept of beauty of the whole of the buildings constructed, always thinking of their aesthetic and practical integration in the place where they are to be located'¹⁵.

In his work *De architectura* (I, 4) we find in great detail the urban planning principles which, according to Vitruvio's criteria, should be followed in order to take maximum care of the health of the citizens, all of them related to the care of the natural urban environment. It is worthwhile to focus on them in our study:

VITRUVIO POLION, De architectura (Liber Primus, Caput Quatrum): [1] In ipsis vero moenibus ea erunt principia. Primum electio loci saluberrimi. Is autem erit excelsus et non nebulosus, non pruinosus regionesque caeli spectans necque aestuosas neque frigidas sed temperatas, deinde sic vitabitur palustris vicinitas. Cum enim aurae

III, Madrid, 2016, 131-156. Vid. FERNÁNDEZ DE BUJÁN, A. A propósito del interés público como principio inspirador de la actividad financiera ateniense y las acciones populares romanas. – In: RGDR, 39, 2022; FORTUNAT STAGL, J. Utilitas publica, ius naturale y protección de la natura, Hacia un derecho administrativo, fiscal y medioambiental Romano IV. Madrid, 2021, vol. I, 699-716.

¹⁵ JIMÉNEZ SALCEDO, C. Perspectivas en torno al medioambiente urbano Especial referencia a las ruinas de edificios, incendios, basuras, inmisiones, etc., cit., 373.

matutinae cum sole oriente ad oppidum pervenient et his ortae nebulae adiungentur spiritusque bestiarum palustrium venenatos cum nebula mixtos in habitatorum corpora flatu spargent, efficient locum pestilentem. Item si secundum mare erunt moenia spectabuntque ad meridiem aut occidentem, non erunt salubria, quod per aestatem caelum meridianum sole exoriente caelescit meridie ardet; item quod spectat ad occidentem, sole exorto tepescit, meridie calet, vespere fervet. [2] Igitur mutationibus caloris et refrigerationis corpora, quae in his locis sunt, vitiantur. Hoc autem licet animadvertere etiam ex is, quae non sunt animalia. In cellis enim vinariis tectis lumina nemo capit a meridie nec ab occidente, sed a septentrione, quod ea regio nullo tempore mutationes recipit sed est firma perpetuo et inmutabilis. Ideo etiam et granaria quae ad solis cursum spectant, bonitatem cito mutant, obsoniaque et poma, quae non in ea parte caeli ponuntur, quae est adversa a solis cursu, non diu servantur. [3] Nam semper calor cum excoquit aeribus firmitatem et vaporibus fervidis eripit exsugendo naturales virtutes, dissolvit eas et fervore mollescentes efficit inbecillas. Ut etiam in ferro animadvertimus, quod, quamvis natura sit durum, in fornacibus ab ignis vapore percalefactum ita mollescit, uti in omne genus formae faciliter fabricetur; et idem, cum molle et candens refrigeretur tinctum frigida, redurescat et restituatur in antiquam proprietatem. [4] Licet etiam considerare haec ita esse ex eo quod aestate non solum in pestilentibus locis sed etiam in salubribus omnia corpora calore fiant inbecilla, et per hiemem etiam quae pestilentissimae sint regiones efficiantur salubres, ideo quod a refrigerationibus solidantur. Non minus etiam quae ab frigidis regionibus, corpora traducuntur in calidas, non possunt durare sed dissolvuntur; quae autem ex calidis locis sub septentrionum regiones frigidas, non modo non laborant inmutatione loci valitudinibus sed etiam confirmantur. [5] Quare cavendum esse videtur in moenibus conlocandis ab his regionibus quae caloribus flatibus ad corpora hominum possunt spargere. Namque e principiis quae Graeci stoicheia appellant, ut omnia corpora sunt composita, id est e calore et umore, terreno et aere, et ita mixtionibus naturali temperatura figurantur omnium animalium in mundo generatim qualitates. [6] Ergo in quibus corporibus cum exsuperat e principiis calor, tunc interficit dissolvitque cetera fervore. Haec autem vitia efficit fervidum ab certis partibus caelum, cum insidit in apertas venas plus quam patitur e mixtionibus naturali temperatura corpus. Item siumor occupavit corporum venas inpaesque eas fecit, cetera principia ut a liquido corrupta diluuntur, et dissolvuntur compositionibus virtutes. Item haec e refrigerationibus umoris ventorum et aurarum infunduntur vitia corporibus. Non minus

aeris etiamque terreni in corpore naturalis compositio augendo aut minuendo infirmat cetera principia terrena cibi plenitate, aer gravitate caeli. [7] Sed si qui voluerit diligentius haec sensu percipere, animadvertat attendatque naturas avium et piscium et terrestrium animalium, et ita considerabit discrimina temperaturae. Aliam enim mixtionem habet genus avium, aliam piscium, longe aliter terrestrium natura. Volucres minus habent terreni, minus umoris, caloris temperate, aeris multum: igitur levioribus principiis compositate facilius in aeris impetum nituntur. Aquatiles autem piscium naturae quod temperatae sunt a calido plurimumque et aeris et terreni sunt compositae, sed umoris habent oppido quam paulum, quo minus habent e principiis umoris in corpore, facilius in umore perdurant; itaque cum ad terram perducuntur, animam cum aqua relinquunt. Item terrestria, quod e principiis ab aere caloreque sunt temperata minusque habent terreni plurimumque umoris, quod abundant umidae partes, non diu possunt in aqua vitam tueri. [8] Ergo si haec ita videntur, quemadmodum proposuimus, et e principiis animalium corpora composita sensu percipimus et exsuperationibus aut defectionibus ea laborare dissolvique iudicamus, non dubitamus, quin diligentius quaeri oporteat, uti temperatissimas caeli regiones eligamus, cum quaerenda fuerit in moenium conlocationibus salubritas. [9] Itaque etiam atque etiam veterem revocandam censeo rationem. Maiores enim pecoribus immolatis, quae pascebantur in is locis, quibus aut oppida aut castra stativa constituebantur, inspiciebant iocinera, et si erant livida et vitiosa primo alia immolabant dubitantes utrum morbo an pabuli vitio laesa essent. Cum pluribus experti erant et probaverant integram et solidam naturam iocinerum ex aqua et pabulo; ibi constituebant munitiones; si autem vitiosa inveniebant, iudicio transferebant idem in humanis corporibus pestilentem futuram nascentem in his locis aquae cibique copiam, et ita transmigrabant et mutabant regiones quaerentes omnibus rebus salubritatem. [10] Hoc autem fieri, uti pabulo ciboque salubres proprietates terrae videantur, licet animadvertere et cognoscere agris Cretensium, qui sunt circa Pothereum flumen, quod est Cretae inter duas civitates Gnoson et Gortynam. Dextra enim et sinistra eius fluminis pascuntur pecora; sed ex his quae pascuntur proxime Gnoson, si quae autem ex altera parte proxime Gortynam non, habent apparentem splenem. Unde etiam medici quaerentes de ea re invenerunt in his locis herbam, quam pecora rudendo inminuerunt lienos. Ita eam herbam colligendo curant lienosos hoc medicamento, quod etiam Cretenses asplenon vocitant. Ex eo licet scire cibo atque aqua proprietates locorum naturaliter pestilentes aut salubres esse. [11] Item si in paludibus moenia constituta

erunt, quae paludes secundum mare fuerint, spectabuntque ad septentrionem aut inter septentrionem et orientem, eaque paludes excelsiores fuerint quam litus marinum ratione videbuntur esse constituta. Fossis enim ductis aquae exitus ad litus, et mare tempestatibus aucto in paludis redundantia motionibus concitata marisque mixtionibus non patitur bestiarum palustrium genera ibi nasci, quaeque de suberioribus locis natando proxime litus perveniunt, inconsueta salsitudine necantur. Exemplar autem huius rei Gallicae paludes possunt esse, quae circum Altinum, Ravennam, Aquileiam, aliaque quae in eiusmodi locis municipia sunt proxima paludibus, quod his rationibus habent incredibilem salubritatem. [12] Quibus autem insidentes sunt paludes et non habent exitus profluentes neque flumina neque per fossas, uti Pomptinae, stando putescant et umores graves et pestilentes in is locis emittunt. Item in Apulia oppidum Salpia vetus, quod Diomedes ab Troia rediens constituit sive, quemadmodum nonnulli scripserunt, Elpias Rhodius, in eiusmodi locis fuerat conlocatum, ex quo incolae quotannis aegrotando laborantes aliquando pervenerunt ad M. Hostilium ab eoque publice petentes impetraverunt, ut his idoneum locum ad moenia transferenda conquireret elegeretque. Tunc is moratus non est, sed statim rationibus doctissime quaesitis secundum mare mercatus est possessionem loco salubri ab senatuque populoque R. petit, ut liceret transferre oppidum, constituitque moenia et areas divisit nummoque sestertio singulis municipibus mancipio dedit. His confectis lacum aperuit in mare et portum e lacu municipio perfecit. Itaque nunc Salpini quattuor milia passus progressi ab oppido veteri habitant in salubri loco.

As we can see in the aforementioned text, in this fourth chapter of the first book of VITRUVIO's Architecture, it is striking how, when analysing 'the healthiness of the elements', the architect makes a fundamental reference to the fact that cities should be located on the most favourable terrain possible, literally using the term 'saluberrimi'. Thus, as a key to construction, the architect points to the choice of 'high, open ground, clear of fog and with an orientation that is neither hot nor cold, but temperate', avoiding in any case the proximity of marshy land, 'because at dawn, when the morning breezes come in, the sun rises and the morning breezes come in', when the morning breezes reach the city, they spread the smell of the beasts that live next to the marshes - a nauseating smell - intermingled with the fog that reaches the inhabitants themselves, who, inhaling it with their breath, suffer the consequences of an unhealthy and

pestilential terrain'. Likewise, with regard to climatic conditions, the official architect of the empire indicated that 'the location of the walls next to the sea, facing south or west, will not be healthy either, because when the heat of summer arrives, at dawn the heat is strong and at noon it will scorch; likewise, if it faces west, at dawn the sun warms slightly, at noon it overwhelms and at dusk it will be burning at dusk. Consequently, because of such changes in temperature, heat and cold, the animate beings that inhabit these places end up being altered'. After several indications concerning the correct orientation of cities so that the winds and climate are more favourable, he concludes by stating that it is important to take all this into account, for 'because in the summer all bodies are weakened by the heat, whether they are in pestilential or healthy places; and even during the winter, the areas that are pestilential become healthy because they become more consistent, as a consequence of the cold. Exactly the same happens when people move from cold regions to warm regions: they cannot remain unchanged, but become weaker. On the other hand, those who move from warmer regions to colder areas in the north not only do not fall ill, but become stronger as a result of the change of location. For all these reasons, great care should be taken in the location of the walls, moving them away from those areas that can spread warm air to their inhabitants'.

Following the medical or philosophical beliefs of the time, Vitruvio will come to the conclusion that, since 'all bodies are composed of fire, water, earth and air, (...) when heat exceeds the natural limits it destroys and dissolves the other natural elements with its ardour; such anomalies are also a consequence of a fervid climate, in some specific parts: heat affects the superficial veins with more intensity than the body can bear, according to its natural temperature, depending on the mixture that composes it. If water fills the veins of the body and makes the other three principles unequal, they are distorted, corrupted by the liquid element and, consequently, the qualities they possessed due to their composition or mixture are annulled'. The same, Vitruvio will affirm, will occur with the cooling of the air and of the waters, or of the earths, so that 'if things are really as we have expressed them, if we perceive that the bodies of animals are composed of such principles or elements and if we think that these weaken and die owing to an excess or a deficiency of elements, we have not the slightest doubt that the latter are weakened and die owing to an excess or a deficiency of elements, we have not the slightest doubt that it is very convenient to search with all interest the

location of the walls, in order to choose more temperate areas, since what we are aiming at is healthiness in the arrangement of the walls’.

Thus, according to our author, the criterion of ‘the ancients’, who immolated animals before founding a city to see if they were sick or not and thus find the most suitable place, should be followed again. ‘As they were very expert, when they saw that the livers were healthy, because they fed on water and pasture, they erected their fortifications on that very spot. If they found diseased livers, they logically transferred this situation to the humans, in the sense that in those same places there would eventually be an abundance of unhealthy water and harmful food, and so they would go to live elsewhere, seeking above all healthiness’, wrote VITRUVIO.

In this way, the architect of Augustus will affirm that it must be proved that the land will give good pasture and food, giving the example of Crete, where the river flows between the cities of Gnosos and Gortina, where the flocks graze, with the result that ‘those who graze near Knossos suffer splenitis and those who graze on the other side, near Gortina, do not suffer from such a disease of the spleen. Because of this circumstance, the doctors searched for the reason of such a disease and discovered in these pastures a kind of grass which, by ruminating the herds, diminished their spleen’. Thus, he informs us that ‘by gathering precisely this herb, they heal spleen patients with this medicine, which the Cretans call asplenon’. Therefore, he concludes, ‘we can know that the properties of the places are naturally unhealthy or, on the contrary, salubrious because of their pastures and water’.

There will be no problem, according to Vitruvio, in ‘erecting walls on marshy land, situated by the sea and facing the north, or between the north and the east, and if such marshes are in places higher than the sea shore’, because canals can always be dug to renew the water of the lagoons with the tides, causing the mixing of the waters and thus preventing the birth of undesirable and malignant animals. As an example, our author gives the case of the Gallic lagoons, whose nearby municipalities are extraordinarily healthy. However, there are other lagoons which are not drained either by rivers or canals ‘whose waters are corrupted, exhaling dense and pestilent vapours’, which is why the inhabitants of nearby towns fall ‘seriously ill every year’. This is the case of Salpis, in Apulia, a fortress founded, it was said, by Diomedes on his return

from Troy, whose inhabitants fell ill because it was built on these marshy grounds. Its citizens, Vitruvio himself tells us, got Hostilio to 'seek out and choose a suitable location for them to move their fortress to. Hostilius, on the basis of sound arguments, acquired some land by the sea, in a salubrious place, and asked the Senate and the Roman people to allow him to move the fortress: he raised the walls, divided the area into plots, and for one sestertius sold each inhabitant a plot of land for his house. After these negotiations, he opened a passage from the lake to the sea and built a port on the same lake for the municipality. Today the inhabitants of Salpis, only four thousand paces away from their ancient fortress, live in a salubrious place'.

Clearly, as RODRÍGUEZ NEILA, J.F., will show us, this theoretical prototype 'could not always be rigorously applied'. Moreover, in the specific case of Rome, 'the Urbs par excellence, the capital of the empire, located next to a polluted river such as the Tiber, expanded irregularly around it, between the famous seven hills, in the middle of a pestilential region, violating the most elementary principles of urban healthiness advised by Vitruvius and not responding to the model indicated. The forum itself, the centre of transcendental decisions for the entire Mediterranean orb, was originally a marshy area. Even in ancient times, drainage and drainage projects had to be undertaken, but the humidity of the area was always a problem. Thus, although the emperors undertook major urban redevelopments, the oversized demography of the city, which in the 2nd century AD was said to have had more than 1.2 million inhabitants, had a significant and negative impact on 'its natural environment and its fauna and plant resources, altering the balance of the ecosystems and generating specific urban ecological problems, which already foreshadowed those we suffer from today'.¹⁶

Although the Romans, for obvious reasons, did not have to contend with modern problems such as atmospheric gas and pollution, air and water pollution problems increased in the urban environment. For example, RODRÍGUEZ NEILA, J.J., reminds us that the widespread use of torches, oil lamps or coal combustion in braziers produced

¹⁶ RODRÍGUEZ NEILA, J.F. Problemas medioambientales urbanos en el mundo romano, cit., 28. Vid. SOLIDORO MARUOTTI, L. La tutela dell'ambiente nella sua evoluzione storica. L'esperienza del mondo antico. G. Giappichelli Editore, Torino, 2009, 79 ss.

fumes that often made the air breathable, to which should be added those coming from foundry or pottery workshops, bread ovens or baths, or simply fires, so common in Rome and with such tragic consequences. If we add to all this the bad smells from the dirt that could accumulate or from the sewers that were in bad condition, which corrupted the air, the situation becomes truly unhygienic. Our author shows us, by way of example, how CICERON himself recounts how VERRES, when walking around Rome in his saddle, used to protect himself against the nauseating smell with wreaths of flowers around his neck and on his head and with a linen cloth impregnated with perfume covering his face. When, in addition, because of the weather, it accumulated in suspended dust, the haze could become terrible. So much so that the Romans would call this polluted air, according to RODRÍGUEZ NEILA, J.F., 'charged sky' or 'infamous air'. In fact, even SÉNECA¹⁷ would claim, when fleeing Rome for health reasons, that he was leaving behind 'the unhealthy air and the smell of smoking kitchens'¹⁸. The *Civitas*, therefore, was no stranger to serious environmental problems that continually endangered the health and safety of its inhabitants and which, in many cases, did not exactly make it an attractive place to live; among all of them, we can specify with ALBURQUERQUE, J.M., the following: 'the pollution of the city, the dirtiness of the streets of Rome; the pollution of the air, the suffocating air of the city with the smoky eating houses; the noise pollution, with the noise of the passing of goods, the noise of the hammers and saws in the workshops, the creaking carts that dragged the blocks of stone and wood; the saturnine pollution, the lead poisoning -lead pipes, lead cookware, leaden containers, etc.- which directly affected the health of the inhabitants, and which directly affected health and could sometimes lead to death'. Or in rural areas: 'the deforestation of forests, the clearing of land to increase agricultural areas, the abusive extraction of wood and stones, causing soil erosion; excessive agricultural use, and increasing livestock farming; the great damage caused by mining, etc.; the pollution of water, running water springs, public springs in the city of Rome'¹⁹. All of these

¹⁷ Vid. ALBURQUERQUE, J.M. La inmanencia del pensamiento de Séneca en el método educativo de la institución universitaria. – In: *RGDR*, 2021.

¹⁸ RODRÍGUEZ NEILA, J.F., op. cit., 29.

¹⁹ ALBURQUERQUE, J.M. Algunos fundamentos y convergencias de la experiencia administrativa romana sobre el medio ambiente, los recursos naturales y res publicae. – In : *Glossae*, 14, 2017, 32. Vid. PIZARRO NEVADO, R. Medio ambiente: emplazamiento de actividades insalubres, concepto de industria fabril, explotación ganadera. – In: *Revista General de Derecho Administrativo*, 19, 2009.

undoubtedly posed very considerable challenges that Roman law and jurisprudence had to face; and they did so with remarkable success, we might add.