

A close-up photograph of four young green seedlings growing in dark brown soil. The seedlings are in various stages of growth, with some showing two leaves and others just starting to emerge. The soil is rich and textured, and the background is softly blurred, focusing attention on the plants in the foreground.

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The twelve points of library permaculture

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Or how to apply permaculture principles in the library

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Introduction

Permaculture is a type of systemic design used for agricultural, horticultural or forestry purposes as well as for urban and social objectives.

It is based on the simulation or direct utilization of patterns and characteristics that can be found in natural ecosystems in general, and particularly in those ecosystems that have been displaced by farms or urban communities.

The original name, *permaculture*, derives from the English expression "*permanent agriculture*," which was part of the title of a work by American geographer Joseph Russell Smith (1929). Later, this expression was adjusted to "*permanent culture*" to allow for the incorporation of social aspects — from whole-systems thinking to community resilience.

The concept of permaculture was developed around 1968 by Bill Mollison and David Holmgren, who popularized the name in the introductory book on this design technique, *Permaculture One* (1978). That volume was followed by others, in which the original authors and a number of other specialists explored various aspects of the idea, including traditional architecture, aquaculture, economics, and management.

In the words of Mollison (1991), permaculture "is a philosophy that works with nature rather than against it; one of long, thoughtful observation rather than long,

thoughtless labor." Originally, it was posited as a form of agricultural work opposed to industrial methods: a more "traditional" and "natural" approach to the land and the life that develops on it. However, the systemic perspective served as an approach to other issues related to agriculture. And from that point, the approach served to analyze social structures and propose viable alternatives to them.

Since 1988 (Mollison & Holmgreen, *A Designer's Manual*), the three ethical principles on which permaculture is based are:

- (1) Care for the Earth: Ensure that all vital systems of the planet remain active and multiply.
- (2) Care for people: Ensure that all human beings have access to those resources necessary for their existence. (*The absence of any mention of non-human living beings is striking in this context*).
- (3) Setting limits on population and consumption: By managing our own needs, we can better manage resources and thereby promote the principles listed above.

In 2002, Holmgreen ratified the third principle as "Set limits on consumption and reproduction, and redistribute the surplus."

If one adopts the perspective —long explored and experienced, and equally ignored or neglected by the mainstream— that human beings are an integral part of the life of the planet, and eliminates the artificial division between "society" and "nature", it is

entirely understandable that the permaculture schemes originally intended for agriculture have been applied, equally, to the social world.

A social world that includes libraries, archives, museums and other knowledge and memory management institutions: products of the social, political, and emotional activities of different human groups.

The above reasoning has led to the development of this series of posts, in which the twelve *design principles* of permaculture proposed by Holmgren (2002) and adapted by Hopkins (2008) will be collected and applied to the field of librarianship and other related disciplines. The intention of this exercise is to use, in LIS, elements coming from practices and disciplines related to degrowth and other narratives, and detaching from the official discourse of sustainability and "green."

The texts are presented as a simple "critical thought" exercise, and has no intention of implanting any position or narrative whatsoever. They are presented so that, with a bit of luck, they may initiate other thoughts, or even practices and research that combine knowledge, memories and territories.

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Principle 1

Observe and interact

When approaching the implementation of any process, activity or project, a considerable number of strategic planning manuals emphasize an initial and basic idea: observation is an essential skill.

Indeed, the assessment of preconditions, the recognition of needs and opportunities, or the detection of risks are stages that require a direct look. And devoting sufficient time to observation can save inconveniences in later stages of work.

Observation is usually directly linked to interaction, both with the environment (understood as space or territory) and with its inhabitants. Through dialogue and other qualitative research techniques, data and ideas can be obtained that would otherwise remain hidden and unknown.

In the field of libraries (and in other disciplines of knowledge and memory management), observation and interaction are obviously necessary, especially during planning processes, both for new library spaces and for services and activities. However, they are rarely taken into account, and are often replaced by impersonal statistical processes that, although might save time and handle a (relatively) larger

amount of data, do not provide the rich, dense information that observation and interaction could deliver.

Detailed observation of a library structure or space (potential or actual) and its context (geographical, social, cultural, ethnic, political, economic, environmental...) makes it possible to properly assess the situation in which it finds itself, identify its shortcomings and its possibilities, prioritize its needs, make informed decisions and act accordingly.

Going a step further, interaction with the reality in which the library is placed—including the community of users, the geographical location, the administrative or political units, the socio-cultural actors...— allows us to broaden and deepen our knowledge of the library even further. A simple initial observation becomes, thanks to interaction, a "participant observation" through which greater knowledge is acquired about certain aspects known only superficially in the first instance.

The observation of reality (space, territory, community, nature...) must be performed from different perspectives (the one of a professional, a woman, a director, a worker, a child, an elder...) and from different levels (local, regional, national, global). Only in this way will it be possible to get a complete picture of the situation: to identify all the elements that are part of the library's work, and to find out what their situations are, how they interact with each other and affect each other, what the problems are, and what the possible solutions are.

Additionally, in a world where resources are depleting and where degrowth is urgently needed (that is: in a world where a situation of crisis and lack of resources is absolutely imminent), a good design based on a precise observation is a more "sustainable" option than any package of solutions based on intensive uses of energy and materials.

Just as permaculture as an agricultural technique emphasizes observation of the land and the environment and direct interaction with all its elements as an indispensable prior step to understanding the natural rhythms and acting accordingly, for the disciplines of knowledge and memory management it should be important to observe and interact to understand the social environment and its needs. Thus, and only thus, can a library (or an archive, or a museum) become relevant to its community of users.

Principle 2

Capturing and storing energy

Energy is an essential element for any system, whether natural or social. It is what feeds it, what keeps it running. There are energy inputs and outputs, which can take different forms, both tangible and intangible. At the same time, such energy can be captured and stored through different mechanisms and in different ways, with different purposes and results.

In the case of a natural system, one of the main energy sources is sunlight. In the case of a social system, it is information. Both set in motion a wide series of processes —for example, photosynthesis, or the construction of identities— that lead to keep the system active, to its reproduction and to the generation of products, which can be considered as energy outputs (and as inputs of another different system, since all systems form a dense interconnected fabric).

Permaculture points out the imperative need to be (or become) skilled in making the best possible use of energy, whatever its form. In particular, it is necessary to learn to capture essential elements in times of abundance to be able to take advantage of them during periods of scarcity, which, in general, tend to be much longer (and common).

In the particular case of library spaces and services, this principle does not only point to the worn-out "green" need to turn the library into an energetically sustainable

building (i.e., one that properly manages heat and converts solar energy into electricity, and distributes and processes water and waste, among other things). The idea is to extend this aspect of permaculture to all library processes: acquisition, organization and proper storage of information, discard (if possible or necessary), human resources management, working with the community.... It is necessary to optimize these processes to make the best possible use of resources that, as mentioned above, are scarce (and will become more and more so).

The Latin American librarian reality, eternally plagued by gaps and deficiencies, highlights the urgent need to think about processes from the perspective of permaculture. In this sense, managing energy inputs and outputs is essential, especially from an innovative point of view — "innovation" understood as "solving problems and challenges with what you have at hand (because you do not have and will not have anything else)", and not as "using market novelties (especially when you have an excellent budget) and trending topics."

Going one step further, there is a strong social aspect, generally ignored, in the management of library energy. A political aspect, if you will, that must be addressed and taken into account from the initial steps of library planning. What resources exist for that library, what needs must be covered, how long will such (scarce) resources last? Is it intended to respond to the characteristics and problems of the user community, or simply to comply with a rickety official plan and a winning discourse? Is long-term thinking being done? Are the projects anchored to the territory and local identity, or do they come from outside, as part of a trend that is alien to the searches,

ideas, beliefs and traditions of the locals? Are energy input, management and output really necessary in these particular forms?

In modern agriculture, tons of resources (land, water, fertilizers) are spent to obtain limited results that do not always respond to the needs of the territories where this agriculture takes place. Countless parallels can be drawn between this image and that of many libraries in Latin America: parallels whose analysis can lead to debates on colonizing positions, among others. This principle of permaculture should fuel critical reflection and discussion on the management of resource management (the "capture" of resources, their storage and use) from a perspective of "sustainability" not only environmental, but also social.

Principle 3

Obtain a yield

From a purely analytical perspective, any intervention that is carried out in a given system and any change that takes place in it must be, in some way, "productive." That is, it must leave some kind of profit, reward, yield, or useful result as part of the work done and the energy invested.

Some analysts believe that a significant part of those rewards should be immediate, as they provide motivation and incentive. However, in other cases there may be processes that will only produce results in the very long term.

The third principle of permaculture is that the system being worked with is designed and managed in such a way that each of its elements produces a "yield." However, this is not exactly a typical utilitarian / mercantilist / capitalist approach whereby "if there is no profit, the system is useless." This principle recommends the use of the usually scarce resources to obtain the best possible results with the least possible effort (i.e., with the least expenditure of energy).

Since the principles of permaculture can be applied to both agriculture and social contexts —both systems respond to the same logic—, the obtention of a yield, or results, is also valid in libraries, archives and other spaces of knowledge and memory management. Evidently, the work within these spaces is oriented towards the

attainment of certain achievements and the fulfillment of certain objectives. It is therefore necessary to develop realistic and pragmatic strategic planning that, considering the objectives to be achieved and, above all, the energy inputs (i.e., the resources) available, organizes activities and services in such a way as to get the best results.

It should not be lost sight of the fact that library work continues to be useful even when certain quantitative parameters are not met. Many of the results achieved cannot always be quantified or expressed through statistics, and many of the objectives to be pursued are imposed from higher levels, ignoring the realities and possibilities of libraries, and are therefore unattainable.

Principle 4

Applying self-regulation and accepting feedback

Probably two of the most important elements for the proper functioning of a system are self-regulation and feedback.

A well-designed system must be capable of self-regulation. This implies that, once it has been set up, it should require only a minimum of intervention and maintenance. The system itself will adjust its energy inputs and outputs, saving and concentrating that good at other points where it is needed.

To achieve good self-regulation, it is necessary to put the system into operation and observe at which points it is necessary to intervene to keep it running. By optimizing the design of the system and keeping such interventions to a minimum, overall performance can be improved.

Permaculture as an agricultural practice takes advantage of the natural self-regulation of biological systems, although on many occasions it is necessary to adjust some elements, since the very existence of a "crop" controlled by humans, designed to meet their needs and adapted to their circumstances is a kind of "mismatch" of the natural biological balance. An example of self-regulation is biological pest control: the use of natural predators (which are maintained without problems or further external

intervention) instead of the application of insecticides, which can cause a cascade of inconveniences and require constant external involvement and investment.

In the social sphere, self-regulation has been interpreted in numerous ways, and not always correctly. In the particular case of libraries, a self-regulated practice suggests the implementation of various strategies that allow experimenting with the operation of a space or a service before putting them into operation definitively. One example is pilot testing and modeling, which makes it possible to develop simulations and make adjustments until the systems under evaluation function without too many "external interventions" (understood as energy inputs in addition to those strictly necessary). For example, a poorly designed library lending system will involve extra tasks, which means unanticipated energy expenditure. A good lending system keeps itself running smoothly without the need for extra work.

Moving on to the second element, feedback, this can come out of the system in different forms: information, messages or signals that provide useful data on the operation, performance or outcomes. The sources and formats of such feedback must be identified (in the case of agriculture, they can be very subtle) and it is absolutely necessary to pay attention to them. Good feedback provides a constant, day-to-day evaluation of the system and, if well interpreted and managed, can allow for on-the-fly corrections and prevent major problems from developing.

In most social systems, including libraries, receiving feedback is relatively straightforward: such information can be requested directly. However, for a variety of

reasons, some problems are not detected until it is too late. In that sense, feedback can come in forms other than direct oral or written reports. While the signals may be much less noticeable (gestures, graffiti, absences, silences...), they represent an excellent source of information about the library system and its activities, and provide an opportunity for adjustments and improvements.

Principle 5

Use and value renewable resources and services

Since always, but especially since the dawn of the industrial revolution, human beings have acquired the habit of trying to control their reality (both natural and social) through the use —usually excessive— of natural resources and technology. In most cases, such actions are not necessary at all, and lead to atrocious waste and a series of negative consequences, both for the planet and its human and non-human inhabitants.

In recent times, and with the global realization that humans —or, at least, a part of the species— are using the equivalent of three planets to maintain their standard of living and "control" over the world, this trend has begun to change. Planetary societies find themselves in a historical moment in which the words "renewable" and "sustainable" seem ubiquitous (although somewhat worn out and lacking in meaning), in which degrowth should be an urgent necessity, and in which thinking about the "renewability" of resources, both in natural and social terms, seems an obligation.

In that sense, the fifth principle of permaculture invites us to consider that when that entity known / understood as "nature" can perform certain functions by itself, we should take advantage of them instead of trying to replace them. As most notorious examples, we should let it take care, whenever it can (and without overloading it unnecessarily, because everything has a limit), of ventilation, heating, lighting, water and energy supply, recycling of organic waste and sewage, etc.

Based on this idea, and in general terms, it is necessary to consider that when a given situation occurs naturally, it should be taken advantage of instead of trying to replace it with an artificial solution that will probably not provide the same results, will imply expenses at many levels, and will end up generating unnecessary elements (waste, reactions, etc.).

In short, it is a matter of reducing and limiting human consumerist behavior and, above all, the terrible dependence on non-renewable resources (such as oil and its derivatives).

In the field of libraries, the movement known as "green libraries" has emphasized the use of an architectural design that uses natural elements: large windows and building orientation to take advantage of sunlight, ventilation systems without the use of air conditioning, solar panels... However, the social side of this principle of permaculture has been little used, probably because it has been poorly understood: in the case of pre-existing social, epistemic, cultural, memory, identity or knowledge management structures, they should be used instead of implementing (or forcing) new elements, which surely will not have similar results and may cause problems or negative impacts.

This social principle of taking advantage of "naturally existing resources" is widely applicable, for example, in rural areas or in indigenous communities where a library (or an archive, or a museum) is to be implemented. Local sources, means and resources of knowledge and memory should be used, instead of implementing external elements,

with the costs of labor, energy and material goods that this represents. And with all the implicit colonialism.

Principle 6

Do not produce waste

From a permaculture perspective, the concept of "waste" is basically the result or consequence of poor design.

It is necessary to value and make use of all available resources in a carefully studied way, so that everything is used, and the least possible amount of waste is generated. In this sense, each output of a subsystem should be the input of another within the same system.

To achieve this, says permaculture, it is necessary to think cyclically rather than linearly.

The use of "cyclical processes" is common and widespread within permaculture agricultural practices. Plant debris is composted to serve as fertilizer for the next crop, water is recycled, and almost all materials are reused. However, within a social space, it is a little more difficult to see how not to produce "waste".

In a library, the most obvious "waste" is the collection obtained after a discard process: the set of documents that are no longer useful in the library, either because of their age or their condition, and are therefore discarded. In general, such items end up as paper for recycling or, in a few cases, as books to be sold. In both situations, some

money can be obtained that would eventually allow the acquisition of new documents — thus feeding a library subsystem.

However, there are other paths for such "wastes". They can feed reading programs or even other library collections (community, school, rural...) which, in return, can provide content to the donor library that it cannot otherwise obtain. Also, the most damaged copies can serve as "practice copies" to create and maintain a document restoration program in the library itself: this would save resources for rebinding, recover copies for the collection, and offer the service in exchange for basic fees, which would feed the library economy in a certain way.

This principle basically aims at the reasonable use of resources and the avoidance of waste. A point that, in an age of minimalism and degrowth, should already be well established in the activities of modern human societies.