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Artículos Científicos

El parque urbano Nishi-Rokugō o parque de los neumáticos como ejemplo de la cultura de reciclaje en Japón

The Nishi-Rokugō urban park or tire park as an example of the recycling culture in Japan

O parque urbano ou parque de pneus Nishi-Rokugō como um exemplo da cultura da reciclagem no Japão

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Resumen

El objetivo principal de esta investigación fue divulgar la importancia de la reutilización de los materiales reciclados de las fábricas locales y vecinales, para lo cual se ha tomado como ejemplo la manera en que los japoneses aprovechan estos recursos para la creación y generación de parques y espacios públicos para el beneficio de la sociedad en general. El referente estudiado fue el parque urbano Nishi-Rokugō o parque de los neumáticos, localizado en Nishi-Rokugō, Ota-ku, en el distrito de Ota, en la metrópoli de Tokio (Japón). Como conclusión se puede indicar que el referido parque constituye un gran referente para el resto de los países, pues se evidencia cómo la cultura de las personas es parte vital para impulsar cambios en las ciudades, donde se necesitan entornos para hacer una pequeña pausa en medio de una cotidianidad tan agitada.

Palabras claves: cultura, educación, Japón, parque urbano, reciclaje, Tokio.



Abstract

The main objective of this research was to disseminate the importance of reusing recycled materials from local and neighborhood factories, for which the way in which the Japanese take advantage of these resources for the creation and generation of parks and spaces has been taken as an example. Public for the benefit of society in general. The reference studied was the Nishi-Rokugō urban park or tire park, located in Nishi-Rokugō, Ota-ku, in the Ota district, in the metropolis of Tokyo (Japan). As a conclusion, it can be indicated that the aforementioned park constitutes a great reference for the rest of the countries, since it is evident how the culture of the people is a vital part to promote changes in cities, where environments are needed to take a short break in between of such a hectic daily life.

Keywords: Culture, education, Japan, urban park, recycling, Tokyo.

Resumo

O objetivo principal desta pesquisa foi disseminar a importância do reaproveitamento de materiais reciclados de fábricas locais e de vizinhança, da qual a forma como os japoneses aproveitam esses recursos para a criação e geração de parques e espaços tem sido exemplificada. público em benefício da sociedade em geral. A referência estudada foi o parque urbano Nishi-Rokugō ou parque de pneus, localizado em Nishi-Rokugō, Ota-ku, no distrito de Ota, na metrópole de Tóquio (Japão). Em conclusão, pode-se indicar que o referido parque constitui uma grande referência para o resto dos países, pois fica evidente como a cultura das pessoas é parte vital para promover mudanças nas cidades, onde os ambientes são necessários para curta pausa no meio de uma vida diária tão agitada.

Palavras-chave: cultura, educação, Japão, parque urbano, reciclagem, Tóquio.

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Introduction

Japan is a country with a strong tradition and sensitivity, and possessor of a unique culture in the world. Currently, it is known for its enormous demographic and economic growth (García, 2019), but also for being, together with the United States and Russia, the nations that use 80% of the planet's natural resources in the demands of technological development and in the production of usable goods, despite having only a quarter of the world's population (López, 2009).

Even so, Japan tries to take advantage of a high percentage of solid waste. In fact, the Japanese Ministry of the Environment grants environmental guidelines on waste management and public cleaning according to current regulations that are based on the latest update of the law on solid waste management and public cleaning issued in 2010 (Mora, 2018). Consequently, Japan has implemented various control measures not only in industries, but also in specific aspects of people's daily lives, which has generated in them behaviors regulated by law to achieve environmental care efficiently (Mesa and Villa, 2016).

Logically, this generation and management of solid waste requires the commitment of society, governments, academia, the media, the community, organizations and individuals to minimize the adverse effects on the environment and health (Valderrama, Chavarro, Osorio and Peña, 2018). Therefore, since the fifties of the last century, many of the urban parks in Japan present in today's cities (such as Ueno Park) were built in the few existing free areas of villa gardens, owned by the classes. nobles from the pre-restoration era (Santini, 2015).

Recycling in Japan

Recycling focuses on the collection and separation of the object that has finished its useful life, so that its parts can undergo subsequent transformation into products that can be used again (Environmental Protection Agency, 2000, cited by Tron, 2011). In the words of Velázquez (2012), recycling is the transformation of waste into new products after separating and conditioning them to be used as raw materials.

The importance of recycling takes on a non-existent dimension in other materials and helps considerably to justify their recycling. In the 90s, the European Union and Japan were the leaders in recycling plastics and other solid waste (Shelley et al., 1992, cited by



Arandes, Bilbao and López, 2004). In fact, the world average of PET recycling in 2015 was 41%, with Japan being the country with the highest PET recycling figure (78%) (Suárez, 2016, citado por Valderrama *et al.*, 2018).

Urban parks in the context of the city

Public spaces in cities are varied, as they include avenues, playgrounds, urban parks, among others, which are located in neuralgic points of the cities. Although their dimensions are smaller because they are ornamental, they have the importance of being the lungs in charge of purifying the air in cities, as well as giving children spaces where they can have fun outdoors (Becker, 2012). In other words, they provide a large number of environmental and social benefits, such as the ecological balance and stability necessary for city families and visitors (Mejía, 2019). They, therefore, constitute an open space for public use, where human relations of recreation, recreation, sports, community coexistence, education and culture are established within the city. (Miranda, 1997).

Nishi-Rokugō urban park or tire park

The most extraordinary sample that we can find of tire parks is the Nishi-Rokugō or Tire Park (located in the metropolis of Tokyo), which It is built with approximately 3000 old tires that form large sculptures of Godzilla, spaceships, robots and characters related to Japanese culture capture the creative spirit that inspired this playground unusual and innovative (*Bellissima Kids*, 26 de junio de 2013; Dohrenwend, 2013; *Parques de México*, 2014).

Main goal

The main objective of this research was to disseminate the importance of reusing recycled materials from local and neighborhood factories, for which the way in which the Japanese take advantage of these materials for the creation and generation of parks and spaces has been taken as an example. public for the benefit of society in general.



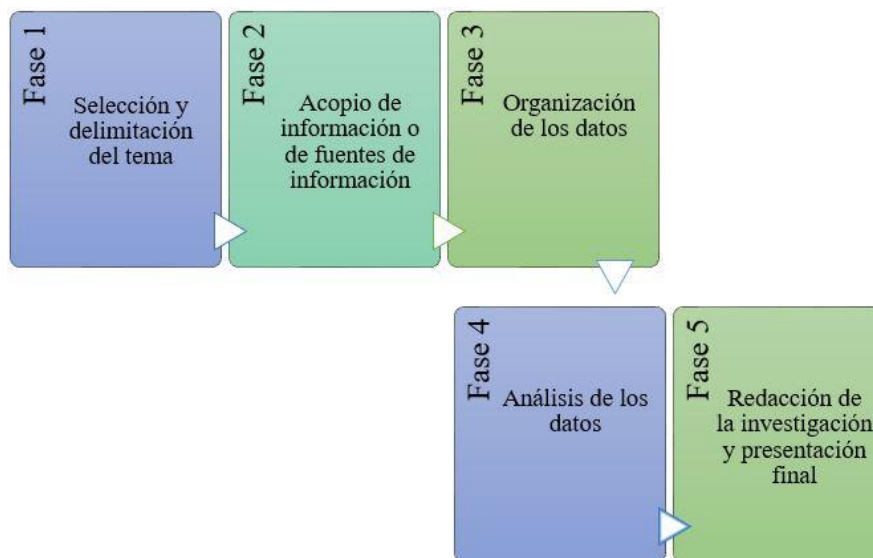
Research question

The great demand and growth of the urban area has generated the need to create spaces or areas for recreation, relaxation and recreation based on recycling. For this reason, the following research question has been posed: what is the benefit of bringing a recycling culture to daily life?

Methodology

The present investigation had a documentary approach, an investigative method based on the revision of texts, articles, bibliographies, videos, films, among others, to initiate or return to a certain topic (Alfonzo, 1994; Restrepo, s. F.). Documentary research is a scientific procedure that allows collecting, systematizing and interpreting the information collected (Alfonzo, 1994). According to Espinoza and Rincón (2006), this methodology is based on the phases shown in figure 1.

Figura 1. Fases de la investigación documental



Fuente: Elaboración propia a partir de Espinoza y Rincón (2006)

Information gathering method

Study area

To follow up on this research, the Nishi-Rokugō Park, located in Nishirokugo, Ota-ku (Tokyo), in the district of Ota, Japan (Japan Hoppers, 2017) was taken as the study area (figure 2).

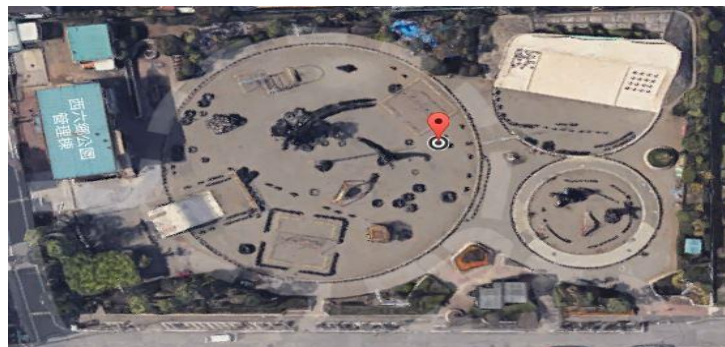
Figura 2. Ubicación del parque Nishi-Rokugō (Parque de los neumáticos)



Fuente: Elaboración propia a partir de imágenes de Google Maps (2020)

Regarding the physical characteristics of this space, it is worth mentioning that some 40,000 square feet (3716,122 m²) of land are designated as one of the strangest and most innovative playgrounds in the world (figure 3), made almost exclusively of tires. The park is full of more than 3,000 recycled rubber tires from nearby Kawasaki manufacturing plants (*Atlas Obscura*, 2020).

Figura 3. Parque Nishi-Rokugō (Parque de los neumáticos)



Fuente: Elaboración propia a partir de imágenes de Google Maps (2020)

Results

With the expansive dynamics of cities and the urbanization of life, parks are beginning to be seen as urban nature due to their functions and environmental values (Vélez, 2009). In this sense, recycled materials minimize the use of components such as iron and, above all, welded joints (García and Sáiz, 2014). This, logically, can bring substantial benefits for society and the environment, as they provide the opportunity to create not only useful and functional spaces, but also awareness in citizens.

A visit to the tire park is an experience like no other in Tokyo. Hundreds of tires of all shapes and sizes are used creatively in the park. Some are carved into robots or dragons, and there are tunnels and mountains perfect for climbing (Wiltshire and Huey, 2000) (figure 4).

Figura 4. Escultura del robot con neumáticos reciclados



Fuente: Elaboración propia a partir de imágenes de Google Maps (2020)

As can be seen in the previous figure, recycling is essential in Japanese urban environments, a process that is used to design artistic forms in public spaces that seek better social and environmental well-being for children, youth, adults and older adults. This tire park, in short, is the perfect representation of an attraction for all that achieves its mission with the development of the imagination (Matías, 2009).

With this type of initiative, it becomes clear that it is possible to combine the natural with recycling and even with modern technology, which is shown in the following sculpture (figure 5), a prototype of a spaceship made with recycled tires from neighboring factories in the area district.

Figura 5. Nave espacial a base de neumáticos reciclados



Fuente: Elaboración propia a partir de imágenes de Google Maps (2020)

As already mentioned, Godzilla is another character of the Japanese culture represented with the aforementioned materials, which reaches five meters in height and arouses the interest of citizens for recycling (García and Sáiz, 2014) (figure 6).

Figura 6. Escultura del enigmático personaje conocido como Godzilla



Fuente: *Bellissima Kids* (26 de junio de 2013)

In the previous figures, it can be seen that the reality of the Japanese urban landscape quickly gained acceptance, while the contrast between the traditional and the contemporary became the most representative image of that city (Santini, 2015); that is, the mixture of the urban landscape and the culture of recycling achieve this type of place for local families to relax (figure 7).

Figura 7. Familia en el parque Nishi-Rokugō, Tokio (Japón)



Fuente: Dohrenwend (2013)

While the park has facilities for children, such as swings, a jungle gym, piles of bouncing tires, and even a large concrete slope used by the more adventurous children, there are also other shady spaces that are used by the elderly to enjoy. of the environment and admire the 28 sculptures available. In fact, the park is surrounded by beautiful flower beds that are well maintained (Ponce, 2017) (figure 8).

Figura 8. Vegetación diversa dentro del parque



Fuente: Elaboración propia a partir de imágenes de Google Maps (2020)

According to the sustainability criteria, the existence of certain ecological, environmental and social attributes or characteristics are principles that define its structure and operation and that become benefits for the present and future of the city (Vélez, 2009). Thus, Japan is the country that has made the most progress in these alternative routes, whose interest lies in their possibilities of application at the national level, combining environmental policies (Arandes *et al.*, 2004).

Discussion

The needs of having this type of space are related to the social and environmental well-being of a city that is in constant movement. In this sense, you can find many more parks within Japan, but the Nishi-Rokugō is the exception, as it teaches how citizens add value to their daily lives with this type of space. In fact, in this park culture, tradition and innovation are mixed. This type of park, in addition, can generate all kinds of social and environmental activities that serve for recreation, relaxation and family life.

Therefore, it is shown that Japanese ingenuity relies on recycling to address problems within its urban environments, which allows progress towards a culture of preservation of important places for the daily life of current inhabitants, as well as future generations, who will surely continue this sustainable legacy. Therefore, concepts such as honor, beauty or art acquire deeper nuances than we can intuit. (García, 2019).

Conclusions

If the culture and reuse of solid waste were taken sensibly, effective environmental and social results could be achieved. To achieve this objective, the practice of recycling could be promoted based on the Japanese model, where education, culture and creativity - without neglecting government support - generate stable proposals for a sustainable future in recreational spaces for citizens. usually.

The Nishi-Rokugō Park, therefore, constitutes a great reference for the rest of the countries, since it is evident how the culture of the people is a vital part to promote changes in the cities, where environments are needed to take a short break in between of such a hectic daily life.

Future lines of research

The following are some of the lines of research that can be promoted based on the culture of recycling and sustainability in different urban areas:

- Apply the study carried out regarding the culture of recycling within large, medium and small cities.
- Carry out comparative studies following sustainable and recycling lines for the creation and generation of urban spaces.



- Prepare and evaluate social programs aimed at recycling to promote environmental education.
- Initiate research based on proposed models of parks based on recycling.

This type of proposed initiatives should be developed by people interested in knowing how these types of parks are made up to offer alternatives to social and environmental problems within cities that are constantly growing. This, in addition, will teach future generations the value and care of urban spaces, which provide a positive impact on the different ways of seeing environmental care.

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