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Species With Architectural Potential For The Orizaba-Córdoba Conurbation

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ABSTRACT

The vegetation that surrounds the municipalities of the Orizaba-Córdoba conurbation, houses very important species from the aesthetic, architectural point of view, biological and ecological, and that have not yet been given due importance, because the demanding population focuses on traditional species and forms without realizing that similar species develop and that throughout their development they acquire different arrangements, sizes and colors. This situation should be better taken care of to associate these intrinsic characteristics, of the individuals as of the vegetation as a whole, to those of design and space in the urban, peri-urban, industrial, commercial and artisanal architecture. 41 species of different climates and conditions of development, of primary and secondary vegetation, as well as evergreen and deciduous, also with forms of fronds, branches, and variations of foliage or color and size of leaves, were gathered with qualities to be used in the architectural, landscape and of course ecological for the climatic and pedological variations of the Orizaba-Córdoba conurbation, urban and agricultural.

Keywords: Conurbation, frond, green areas, color of foliage.

Introduction

The vegetation that surrounds the municipalities of the Orizaba-Córdoba conurbation, houses very important species from the aesthetic, architectural point of view, biological and ecological, and that have not yet been given due importance, because the demanding population focuses on traditional species and forms without realizing that similar species develop and that throughout their development they acquire different arrangements, sizes and colors, This situation should be better taken care of to associate these intrinsic characteristics, of the individuals as of the vegetation as a whole, to those of design and space in the urban, peri-urban, industrial, commercial and artisanal architecture. Now with the environmental impact (visual, ecological, climatic, urban) it will be necessary to take into account the realization of green areas with species that go in harmony or harmony with the space itself, dimensions, architecture, colors of structures, human activities, and development of plant individuals over time. To occupy a space, enrich, associate forms and as a thermal insulator.

Spaces

Different spaces are considered that man tends to take advantage of or stop using for lack of idea or customs or in the best of cases due to economic deprivation or even recently due to the environmental apathy of strengthening spaces with individuals that provide a better visual and feeling of tranquility, of recreation, conservation of the species themselves, in general harmony. So you have the spaces to know: houses, depending on the location can be rural or agricultural, peri-urban (residential, subdivisions), urban (traditional and social interest), industrial, urban reserve areas and the surroundings. The houses depending on the location have a surface designed to maintain plant individuals and sizes and shapes. The spaces in industrial zones are wider and therefore certain species and quantity of them are required as well as a defined association. In both internal and external areas, suitable species are required; Something that is not taken into account are the conditions of the ground and subsoil, that is to say depth, limitations of rocky material, dimensions of the area or limitations of garrisons, pedestrian crossings, metal and concrete structure together with the previous root (dimension, depth required, real extension of the same roots moisture requirements, retention and filtration of it) Molina Prieto (2007).

Another use of plant species is to conform ornamental areas or urban landscapes, these areas differ in dimensions from one city to another and even within them from an urbanized area to commercial, residential and recreational areas such as recreational areas, parks, malls, do not overlook the ridges, spaces in public buildings and sidewalks.

Forms of the species

The forms to take into account of the species is so varied, but also combinable because inherent characteristics of the individual are associated with the space where it will be located as well as the one or the uses of the same species. Of the plant species are taken into account: initial and final size or size, size and shape of frond, conservation of foliage, dimension and conservation of fruits, times of stages of development, water requirements, root dimension, color and seasons of change. The size of the trunk or main stem is necessary, bifurcation. From the frond the branches, length and position of the frond, can be given from the lower parts of the stem and to the top, other fronds of the middle part and to the top and finally the crown at the tip of the tree. Another variable of the frond is that it is sectioned as if they were several fronds in a single. Another situation regarding the shape of the frond is that it can be rounded, conical, cylindrical rounded elongated to ovoid, triangular, ordered or totally disordered; compact and staggered.

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Applications

The uses provided to the species or the benefits that these provide, can be so varied, more common uses: shade, soil protection, thermal insulation, aesthetic or ornamental, for protection or conservation of the species itself, as a visual attraction of the landscape, as a living wall, high fence, medium or low depending on the species used, now for carbon capture and part of the design of housing or construction in general.

Source of species

The development of the vegetation surrounding the cities, the different types of vegetation, the strata that make up the species help differentiate fronds floors so they have high, high-media, medium, low-mid and low; the foregoing defined by the fronds, location, orientation or arrangement of fronds and / or branches. The types of vegetation found in the conurbation are as follows: in the municipalities of Nogales and Ciudad Mendoza, Pine Forest, Encino Forest, and secondary vegetation of these forests predominate. Towards Orizaba, and the municipalities of the north and the south, the mountain mesophile Forest predominates, with indications of medium subperennifolia jungle, successional states of both, as well as riparian vegetation or gallery forest. In the municipality of Córdoba and the conurbations (Fortín, Amatlán de los Reyes, Yanga, Cuitláhuac, Coscomatepec and Huatusco), mesophilic mountain forest, medium subperennifolia forest, low deciduous forest, low spiny forest, as well as acahuales and successional stages of human intervention, by the development of crops and their abandonment in some cases and areas. Another source is the live fences as noted by Avendaño and Acosta (2000) and Villavicencio-Enríquez and Valdez-Hernández (2003).

Goals

- Provide new species with landscape qualities, located in the Orizaba-Córdoba conurbation.
- Select species for urban development in general.
- Introduce the existence and application of species with one or several aesthetic uses.

Methodology

From the field trips made by the conurbation, species were identified that by their form of stem development, size and characteristics of the frond, in addition to the conditions of the roots, could be used for aesthetic purposes or enrichment of green areas urban areas in all its modalities. In large part, species similar to those already known and used for their qualities were sought, such as: leaf size, perennifolia and deciduous, color of foliage, tree dimensions in general, size and forms of the frond, ease of adaptation, minimum requirements for maintenance and care, individual and grouped eyeiness or in the formation of associations in the spaces.

Description of species

41 species of different climates and conditions of development, of primary and secondary vegetation, as well as evergreen and deciduous, also with forms of fronds, branches, and variations of foliage or color and size of leaves, were gathered. Some species will be useful in small spaces and others require large spaces to observe them in their maximum form. Other species outside the normal ones used as ficus or thunder, almond tree were taken into account.

Most of the selected species are of medium to low bearing, which will increase the feasibility of using and occupy small spaces to enrich the landscape with forms of trees, the stems are monodoric, simplistic, with simple and compound leaves. With colors ranging from traditional greens to yellows; There is no need to write down the characteristics of the flowers, both by colors and shapes. An important characteristic when introducing it in the spaces, are the fronds, in which these, stratified and rounded to irregular, which can be pruned to the needs of the space and present structures.

One disadvantage may be the deciduous aspect, but it is the least to be able to enrich the landscape, which today is more deteriorated by the growing deforestation and therefore the qualities of the trees should be taken advantage of as a thermal insulator, carbon capture, aesthetic and architectural in different spaces such as urban green areas, residential subdivisions, public buildings, extensive development spaces, roads, avenues and sidewalks or garrisons, lots and parks or municipal malls. An important advantage for some species is that they produce fruits and wood of very good quality (Aguilar and Barajas, 2005).

Conclusion

An important number of species (41) were combined, perhaps unknown but with qualities to be used in the architectural, landscape and of course ecological for the climatic and pedological variations of the Orizaba-Córdoba conurbation, urban and agricultural.

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Appendix

No.	Scientific Name	Common Name	Family	Main Characteristic Of The Species	Preferred Location Of Use	Principal Aesthetic Use	Observations
1	Bahuinia ungulata L	Deer quill	Leguminosae	Medium to low irregular fronds	Warm weather	Individual tree, middle spaces	Stem with hard wood
2	Bursera simaruba (L) Sarg.	Mulatto stick	Burseraceae	Colorful stem and foliage	Warm and warm climate	Association of trees, fences, open spaces	Aligned, fence alive
3	Cecropia obtusifolia Bertol.	Guarumbo	Cecropiaceae	High Frond	Warm and warm climate	Association of individuals	Medicinal foliage
4	Cedrela odorata L.	Cedar	Meliaceae	Medium high frond	Warm and temperate climate	Association of individuals	Aligned, fence alive
5	Clethra mexicana A. DC.	Zapotillo	Celastraceae	Upper medium high singular frond	Warm weather	Individual tree	Foliage
6	Coccoloba barbadensis Jacq.	Comalillo	Polygonaceae	Medium rounded frond	Acoustic temperate climate	Individual and associated tree	Aligned, foliage wall
7	Crescentia cujete L	Jicaro	Bignoniaceae	Low frond	Warm weather	Individual tree, space media	Aesthetic fruit
8	Croton Draco Schldl.	Sangregado	Euphorbiaceae	Medium low frond	Warm weather	Individual tree	Medicinal
9	Cupania glabra Sw.	Quiebracho	Sapindaceae	Medium high frond	Warm-temperate climate	Individual tree, association of individuals	Timber
10	Dendropanax arboreus (L) Decne & Planchon.	Stick spoon.	Araliaceae	Frond rounded medium high	Warm-warm climate	Individual tree	Soft wood, paper
11	Diospyros digyna Jacq.	Black sapote	Ebenaceae	Rounded broad frond	Warm weather	Individual tree, in large spaces	Fruit, medicinal
12	Enterolobium cyclocarpum Jacq Griseb	Orejuelo	Leguminosae	Low broad rounded frond	Warm weather	Individual tree, in large spaces	Shade and timber
13	Erythrina americana Mill.	Colorin	Leguminosae	Elongated medium frond	Warm-warm climate	Individual tree, in association	Edible
14	Eugenia jambos L	Pink rose	Myrtaceae	Medium-low frond, rounded	Warm-warm climate	Individual tree, in association	Fruit
15	Ficus tecolutensis (Liebm) Miq.	Fig tree	Moraceae	Rounded high frond	Warm weather	Individual tree	Edible
16	Fraxinus uhdei (Wenz) Lingelsh	ash tree	Oleaceae	Elongated rounded frond divided into strata	Warm-warm climate	Individual-associated tree	Timber
17	Guazuma ulmifolia Lam.	Guacimo.	Sterculiaceae	Elongated frond medium to low	Warm-temperate climate	Individual-associated tree	Timber
18	Heliocarpus appendiculatus Turcz.	Jonote	Tiliaceae	Frond rounded medium to high	Warm-warm climate	Individual tree	Shade
19	Inga edulis Mart.	Monkey's tail	Leguminosae	Stratified medium frond	Mild weather	Individual-associated tree	Shade
20	Inga jinicuil Schltdl. & Cham. Ex G. Don.	Jinicuil	Leguminosae	Medium-high stratified rounded frond	Warm-temperate climate	Individual-associated tree	Fruit shade
21	Jacaranda mimosifolia D. Don.	Jacaranda	Bignoniaceae	Low rounded extended frond	Warm weather	Individual tree large extensions	Shade

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No.	Cont.						
22	Liquidambar microphylla Oerst..	Ocozote	Hamamelidaceae	Upper half elongated rounded frond	Mild weather	Associated tree	Aesthetic, Shade
23	Luehea candida (Moc. & Sessé ex DC.) Mart	Tepecacao, milkweed	Tiliaceae	Rounded frond medium low	Mild weather	Individual tree	Aesthetic
24	Lysiloma acapulcensis (Kunth) Benth.	Tepeguaje	Leguminosae	Half rounded frond forms a stratum	Warm and warm climate	Individual tree	Timber, Shade
25	Melia azederach L.	Pickaxe	Meliaceae	Medium low frond	Warm weather	Individual tree	Timber, insecticide
26	Persea americana Mill.	Avocado	Lauraceae	Frond in medium high strata	Mild weather	Individual	Fruit
27	Persea schiedeanna Nees.	Chinene	Lauraceae	Frond in medium high strata	Mild weather	Individual	Fruit
28	Platanus mexicana Moric.	Poplar	Platanaceae	Elongated frond in medium high strata	Mild weather	Colored foliage	Shade, Timber
29	Plumeria rubra L.	Plumeria	Apocynaceae	Low rounded frond	Warm weather	Flower and foliage, individual	Ornamental
30	Prunus capuli Cav.	Capulin	Rosaceae	Frond rounded medium high	Warm weather	Frond, individual	Ornamental, fruity
31	Psidium sartorianum (Berg.) Ndzu.	Guayabillo	Myrtaceae	Frond in high stratum	Mild weather	Frond, individual	Timber
32	Spondias mombin L.	Jobo	Anacardiaceae	Medium-low rounded frond	Warm, temperate climate	Frond individual	Fruit
33	Tabebuia rosea (Bertol.) DC	Rosewood	Bignoniaceae	Medium low stratified frond	Warm weather	Flowering	Timber
34	Talauma mexicana (DC) Don.	Yoloxochitl	Magnoliaceae	Elongated frond medium high	Mild weather	Frond, medium to wide spaces	Timber, medicinal
35	Threma micrantha (L) Blume.	Ixpepe	Ulmaceae	Frond in medium high strata	Warm-warm climate	Frond, individual	Timber
36	Ulmus mexicana (Liebm). Planc.	Zempoalehuatl	Ulmaceae	Rounded frond, strata, high	Mild weather	Frond, shade, wide spaces	Timber
37	Acacia angustissi-ma (Mill) Ktze	Prairie Acacia	Leguminosae	Low irregular frond	Warm and warm climate	Shade	Tanning
38	Inga spuria Humb. & Bonpl. Ex. Willd.	Chalahuite	Leguminosae	Fronda strata, medium high	Mild weather	Frond, Shade	Medicinal
39	Acacia cornigera L. Willd.	Ergot	Leguminosae	Rounded, low frond	Warm-temperate climate	Stem arrangement, associated	Living, thorny fences
40	Saurauia scabrida Hemsley	Lemongrass	Actinidiaceae	Low frond	Mild weather	Frond	Shade
41	Delonix regia (Bojer) Raf	Jacaranda flamboyan	Leguminosae	Frond in medium-low strata	Warm-temperate climate	Frond, flower coloration, wide spaces	Shade, Timber

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