

## WAYS OF IMPLEMENTING IN THE LANDSCAPING EDUCATION SOME REHABILITATION STUDIES FOR OUTDOOR SPACES OF UNIVERSITIES

### MODURI DE APLICARE ÎN ÎNVĂȚĂMÂNTUL PEISAGISTIC A UNOR STUDII DE REABILITARE A SPAȚIILOR EXTERIOARE AFERENTE UNIVERSITĂȚILOR

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**Abstract.** Nowadays, there are not enough theoretical studies regarding the conception of a specific landscape design for universities outdoor spaces. In this context, we have initiated a thematic research on dysfunctions, needs and ways of landscaping recovery/rehabilitation and development for universities outside spaces. In order to correlate research with specialized landscaping education, we tried to apply the results of these studies in the education of the students from Landscape Specialization within the Horticulture Faculty of USAMV Iasi. The paper analyse selected results of landscaping solutions for virtual spaces and the ways these were applied to real university outdoor spaces of Iași town. We aimed to create multifunctional concepts in order that these solutions can be applicable - sequentially or in whole composition design - to other similar cases

**Key words:** landscaping, education, revitalization, university spaces

**Rezumat.** În prezent, există un deficit de studii teoretice privind conceperea unui design peisagistic specific pentru spațiile exterioare ale universităților. În acest context, am inițiat o cercetare tematică privind disfuncțiile, nevoile și modalitățile de recuperare/reabilitare și dezvoltare pentru spațiile exterioare aferente universităților. În scopul de a corela cercetarea cu învățământul de specialitate peisagistică, am încercat să aplicăm rezultatele acestor studii în educația studenților de la Facultatea de Horticultură - Specializarea Peisagistică - USAMV Iași. Lucrarea analizează câteva modalități în care soluții virtuale de amenajare au fost aplicate în cazul real al spațiilor unei universități ieșene. Conceptele propunerilor selectate sunt multifuncționale, pentru ca aceste soluții să fie aplicabile - secvențial sau complex - în alte cazuri similare.

**Cuvinte cheie:** peisagistică, educație, revitalizare, incinte universitare

## INTRODUCTION

The economic crisis affects higher education institutions in Romania by the lack of funds for rehabilitation and modernization, therefore outdoor spaces belonging to these institutions are mostly degraded in terms of landscape.

Abroad, many exterior spaces of universities are multifunctional designed to provide students propitious conditions for study and relaxation, but also to provide a large variety of activities in order to save funds. For example, one of

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the most interesting multifunctional landscaping example is the concept of Turenscape Group for Shenyang Jianzhu University Campus in China. The Turenscape designers faced with important financial difficulties and the limitations of an agricultural site conditions. Finally, the solution correlated the relaxation and education of the students with a productive landscape, where the farming processes became part of educative and relaxation process, for all interested (Krauel, 2006).

Despite these landscape design projects for exterior academical spaces, there are few theoretical studies regarding the analysis and conception of specific landscape design for universities outdoor spaces. In this context, we have initiated a research on thematic disfunctions, needs and ways of landscaping recovery and development for outside spaces of universities.

In order to correlate research with specialized landscaping education, we tried to apply the results of these studies in the education of the students from Landscape Specialization within the Horticulture Faculty of USAMV Iasi. The paper analyse selected results of landscaping solutions for virtual spaces and also for existing spaces of universities outdoor spaces. We aimed to create multifunctional concepts in order that these solutions can be applicable - sequentially or in whole composition design - to other similar cases.

## **MATERIAL AND METHOD**

The study started from identifying issues and needs, raised by the loss of many outdoor spaces of Romanian universities, due mainly to their degradation and disuse. In the same time, the necessary background support was created by documentary studies about some specific landscape design for universities outdoor spaces, supplemented with comparative analysis. We applied some of these studies in the landscape architecture education, in order to develop students design creativity. Students were directly concerned, since these type of arrangement were for their benefit, were intended to create a high degree of quality for their academic life.

Starting from these premises, we have conceived several design themes whose purpose was to develop students creative personality. These themes are developed in virtual spaces for the students of second and third academic years, as useful exercises to improve their landscaping skills. For the fourth year and also for the license projects we created themes for existing situations. One of the existing cases selected for this paper was the rehabilitation of three exterior courtyards of "Al. I. Cuza "University of Iasi. The setting of needs and existing dysfunction, both for virtual and existing spaces, led finally to the fulfilment of few solving concepts. In order to prove the range of planning types diversity in landscaping design, this study presents selected concepts for development and revitalization.

## **RESULTS AND DISCUSSIONS**

The themes developed in virtual spaces was created for the students of second and third academic years after preliminary studies. In order to experience how the researche ideas can be applied to improve landscape design education in a specific area, we have chosen as basic theme of landscape design "Landscape

design of academic interior yard”, having square shape of 18 m x 18 m. For the beginning of the design process it was necessary a synthetic presentation of the research ideas for the students (Fig. 1).



**Fig. 1** - Presentation of the research ideas for the students - photo by Dascălu

Then we started a general survey, conducted among students, staff and the auxiliary staff, setting what would be their main needs for leisure and teaching activities in outdoor spaces of the university. Together with students, we analyzed the dynamic of needs and leisure, personal items that may influence the design concept. The most important has been found the cultural and aesthetic needs.

Based on collected options, we established together with students, which would be the functionalities possible to be converted into a spatial concept. The selected functions were the relaxation and leisure, educational and informative functions, social-cultural functions, aesthetic functions, sanogene functions. Further, the multifunctionality of all the elements has been found as the best solution possible to be applied for the limited area of the virtual court.

The next step was the correlation of functions with conceptual aesthetic forms (Petrovici and Nica, 2012). The games of geometric shapes strongly distinguished the solutions. Each student has chosen some games in agreement with his personality, applying it in the virtual space of the yard. To illustrate the results, we present below some of the students selected solutions.

Using successive design surveillance and individual improvements of each solution, we have developed the students courage to use aesthetic forms in order to express landscape functions (Jurov, 2006). Were used games of circles and squared forms combinations (Fig. 2), circles and organic/natural forms (Fig. 3), polygonal and angles games, angles and curves combinations and other combinations.

Further, we have expanded the research to the fourth year and also for the license projects, increasing the difficulty of exercises, to solve problems in existing situations and sites. The goal of developing and refining students creative

personality was achieved by explaining and applying personalized guidance and design corrections to each artistic temperament of students, for all landscaping concepts and arrangements.



**Fig. 2** - Student project with circles and squared forms-photo by Dascălu



**Fig. 3** - Student project with circles and organic forms-photo by Dascălu

In the case of the exterior courtyards of “building B”, belonging to “Al. I. Cuza” University of Iasi (Fig. 4), the investigation of the existing situation revealed dysfunction and planning needs, helping us to establish efficient landscaping solutions. After the restoration of “building A” this university had no enough funds for rehabilitation of “building B” nor for indoor spaces, nor for exterior spaces. In the back area of the “building B” there are three exterior courtyards in an advanced stage of decay, unequipped and almost deserted (Fig. 5). The selected proposals provide two versions of courtyard planning, with various functional areas, designed as multifunctional spaces. We guided the design conceptions, each of the two projects being differentiated by original shapes and features, giving personality to the compositions (Fig. 6).



Fig. 4 - Existent situation - www.uaic - processed photo by Dascălu



Fig. 5 - Existent situation-courtyard in advanced stage of decay-photo by Dascălu



Fig. 6 - Examples from yard projects: left version 1; right version 2 - photo by Dascălu

The spaces were designed both for students and teachers, also for university employees. These spaces are specifically conceived to provide various possibilities for outdoor activities such as: active and passive recreation, leisure, relaxation, self-study and outdoor classes, cultural/educational workshops and other extracurricular activities. In this context, the types of landscape furniture have been studied to provide opportunities for all users, of having different activities. Resting areas and places were designed for individual, collective and



semicolective use, depending on the types of outdoor activities. Some of the effects of morphological landscape elements - such as ground, water and vegetation - were conceived to create either study atmosphere, or to stimulate communication and socialization. To separate rest areas were created differences of land level, water basins, decorative walls with or without water games, colonnades, portals of various materials. These elements have contributed also to directing interior perspectives, helping to a better perception of spatial proportions of the yards. The land was systematized by proposing vertical difference of max. one meter, solved by terracing, steps and other elements judiciously chosen. We avoid using too large variety of furniture, materials, shapes and colors, which could corrupt the aesthetical harmony, or may create confusion effects by over-saturation of perception (Dascălu, 2011). We tried in these design concepts to control the perception of space distances, the distance between the viewer and all points of interest, also to proportionate the rhythm of routes intervals. All these elements have a great importance because they influence the composition, giving balance and harmony for overall final results (Jurov, 2006). In this context were studied carefully the various types of networking between all elements of landscaping that can provide personality-all subtle morphological items, like light and color, play an important role in achieving benefic psychological effects.

## CONCLUSIONS

1. The aims of an efficient correlation of scientific research with specialized education, was verified through the creativity of students to solve the virtual exercises and the practical applications for the existing cases. All solutions presented in this paper are based on our own original design research, verified during the design hours through practical guidance of the students.

2. The students projects for the courtyards belonging to “Al. I. Cuza” University of Iasi proved that a sustainable design can be applied in other similar cases, namely limited and degraded universities external spaces, only by creating multifunctional solutions, for a wide range of outdoor activities.

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