Comparative Analysis Between Two Morgues in Florianopolis, through the View of Ergonomics, Environmental Perception and Behavior

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1 Context

The work consists in analyze the tasks of two morticians from two different morgues in Florianopolis: the first municipal (A) and the second private (B). This is a qualitative research that uses different complementary methods. The results are comparative, with focus in the relationship between environment X user X task. Are proposed improvements for the ambience, postural corrections and reduction of the psychological and emotional loads.

The necessity of researching about this theme comes from the substantiation that exist too few studies in this area. Is a fact that the occupation of the morticians is compost by tasks that demand physical and psychological efforts being necessary a study about their work conditions.

2 Method

A qualitative approach and complementary techniques has been used, so as: bibliographical revision, exploratory visits, inquisition - using not structured and semi-structured interviews -, unsystematic observation and anthropometric analysis.

Through the exploratory visits, was defined the cemeteries that would be researched. The bibliographical review was centered in the main concepts used for the analysis, in the normative of the profession and in the normative for the regulation of the built environment. During the exploratory visits, was conducted a physical and a photographic survey. Interviews were conducted with the director and with the mortician from both morgues. Through the observations, has been make a behavioral analysis. Finally, the anthropometrical analysis was use to evaluate the physical efforts in each of the main work postures.

3 Results

The analysis and the discussion of the results are centered in the key themes: the building environment, the user, the task, the fluxes, behavior analysis, anthropometrical analysis, and, in the end, recommendations.

About the building environment, the morgue A is seated in the central of obits of the town with many others morgues. The morgue B belongs to a private cemetery. The morgue A has almost twice the constructed area that the morgue B and has twice the number of employees. Has been considered one worker of each morgue; both has background specific for the mortician work. The worker A is 1,80m of high and the worker B is 1,73m high.

In the field of behavior psychology, relative to the appropriation, was detected differences in the occupation of the spaces. The physical components have been analyzed from the ANVISA norms and from the elements of the built environment, considering aspects as: healthy, work security, environment comfort and stimulus.

From the description of the tasks, was draw a flowsart for each morgue, considering the available technologies. Has been notice that similarities exists between the tasks performed; however, the flowsart of the tasks is different because of the crane for the matter (body) suspension, existent only in the morgue B.

Through the special displacement, has been detected big distances in both morgues, being necessary an approximation of the tools to the main permanence place of the user

For porpoises of behavior analysis, users were asked about their muscular pains and about weariness; both haven't present serious complaints. The user B mentioned difficulties of working with a fat person bodies; this fact haven't been mentioned by the user A, because of the crane.

About the valuation of the profession by customers and society, the user A perceives the profession as undervalued, while the user B, well valued. Both expressed satisfaction over the work, with is further emphasized by the user B.

Regarding the emotional charge generated by the environment situation, the users presented the same answers. Both pointed that the hardest task is to prepare a child's or a someone's known body. It was evident that users develop skills to avoid emotional involvement with clients. The increased pressure suffered by the users is to remain impartial, calm and patient with the clients that are emotionally distempered. It is confirmed that the emotional and psychological factors has stronger interference compared to the ergonomic factors. Also is confirmed that the level of environmental comfort is related to the previous experiences.

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> With the anthropometrical evaluation was verified that the postures for carrying out activities force specially the lumbar region; dorsum-lumbar and superior members. The main differences is in the posture 01: suspension of the body, in witch the user A doesn't make any effort, while the user B has to make physical efforts and needs help from other person.

> From the point of view of ergonomics, the users didn't present any complaints; meanwhile, the researchers perceived many items to be improved relative to the drawing and disposition of the furniture. Is suggested for both morgues the organization for an important reduction of the displacements to propitiate a better circulation of the users during the activities. Is recommended, for both morgues, the installation of a thrasher for displacement of the matter while suspended in the crane, that also will simplify the flowsart of activities. Finally are proposed supports for the feet and for standing postures.

> Regarding the environmental psychology and the behavioral prospects, are suggested chances for the spaces that afford pleasant sensations to the users. Is propose an integration between the internal and external environment through the use of natural elements, to reduce the sensation of claustral confinement and to offer visual and mental rest

4 **Conclusions**

The interviews demonstrated a complete satisfaction of the user relative to the environment and there are no complains about pains and physical discomforts. Those dates go against the anthropometrical analysis made by the researchers, where has been detected many irregularities. The main difficulty about the ergonomic factor is seated in the fact that the furniture doesn't allow regulations. That's necessary if we consider that the furniture can be used bay different people.

Was contacted that the emotional and psychological factor, in both cases, is an element of interference most important than the ergonomic factors. For this sampling, is possible to infer that the difference between public and private has no significant influence in the build environment or in the furniture. Is important to detach that in the room B (public) there is a dominion, affection and affectivity relationship, while in the room A, the relationship is impersonal and ephemeral. Was perceived that as more the user develops affection to the room, more sensitive becomes about the issue of preparing the bodies and more recognized the work becomes from the part of the clients. From the point of view of the researches is questionable if the rigidity of the imposed normative would be the reason for the estrangement of the relation of appropriation between user and environment. The work brought questions that can bring themes for complementary researches.

5 References

- BRASIL, Agencia Nacional de Vigilância Sanitária. Disponível em http://www.anvisa.gov.br/institucional/snvs/descentralizacao/orientacoes_tecnicas_funerarias.pdf>. Acesso agosto de 2010.
- BRASIL, Associação Nacional de Auxiliar de Necrópsia. Disponível em http://www.ananec.org/Mat%E9ria-sobre-Tanatopraxia.php. Acessado em agosto de 2010
- BRASIL, Brasil Escola. Disponível em http://www.brasilescola.com/psicologia/o-que-e-psicologia.htm. Acessado em junho de 2010.
- 4. BINS ELY, V. UNIVERSIDADE FEDERAL DE SANTA CATARINA Centro Tecnologico. Avaliação de fatores determinantes no posicionamento de usuarios em abrigos de onibus a partir do metodo da grade de atributos. 1997. 207f. Tese (Doutorado) - Universidade Federal de Santa Catarina, Centro Tecnologico.
- DUL, J; WEERDMEESTER, B. Ergonomia prática. São Paulo: Edgard Blucher, 1995 (1. reimpressão 1998) 147p.
- HALL, S. Biomecânica básica. 5. ed. Barueri: Manole, 2009. xviii,542p. ISBN 9788520426432
- ITTELSON, W. et al . An Introduction to Environmental Psychology. New York; David Dempsey Editorial Associete, 1974, 406p.
- 8. LOMBARDO, T. The Reciprocity of Perceiver and Environment. The Evolution of James J. Gibson's Ecological Psychology. New Jersey: Lawrence Erlbaum Associates, 1987.
- MORAES, A., MONT'ALVÃO, C. R. Ergonomia: conceitos e aplicações. Metodologia Ergonômica. Rio de Janeiro: iUsEr, 2003 p.139.
- MORAES, A(org). Ergodesign do Ambiente Construído e Habitado: Ambiente Urbano, Ambiente Público, Ambiente Laboral. Rio de Janiro: iUser, 2004.
- 11. NICKERSON, R. Psychology and Environmental Change. 2003. 318p.
- ORNSTEIN, S. Ambiente Construído & Comportamento: A avaliação pós-ocupação e a qualidade ambiental. São Paulo, Nobel, 1995.
- OKAMOTO, J. Percepção Ambiental e Comportamento. Visão holística da Percepção Ambiental na Arquitetura e na Comunicação. São Paulo: Editora Mackenzie, 2002.
- SNYDER, J.; CATANESE, A. Introdução à Arquitetura. Rio de Janeiro: Campus, 1984. Tradução: Heloisa Frederico.
- 15. UDESC, manual para elaboração de trabalhos Acadêmicos da udesc: Teses, dissertações, monografias e tccs. Disponível em: < http://soniaa.arq.prof.ufsc.br/roteirosmetodologicos/Manual%20trab%20acad%20udesc.pd f>. Acessado em setembro de 2010.
- 16. ZEISEL, J. Inquiry by design. New York: W.W. Norton & Company, 2006

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