in a poorly organized office in which the professional staff is disinclined to give him any guidance or suggestions.

4. Public officials may object to paying a salary to a student assistant. What must be explained is that the student is working for the planning director and that even research assistants at a university are not expected to volunteer their time and services.

**CONCLUSION.** This paper has briefly reviewed the organization and implementation of an internship program for graduate students whose stated objective is a non-academic career in planning. Other social science departments certainly have not balked at the notion that their students can acquire valuable experience by similar participation in various types of public offices. Although only a few students have thus far completed the internship at Western Michigan University, it has proved to be a workable and worthwhile component of their training. Indeed, it is a reminder that young geographers do have skills which can be utilized and sometimes refined outside of the classroom and laboratory.

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**PRELIMINARY REPORT ON DISTRIBUTION OF KARST LANDSCAPES IN CUBA AND THEIR RELATION TO GEOLOGY**

The purpose of this report is to provide a generalized summary of the distribution of karst types in Cuba, rather than in a definitive study of the subject. Karst ground is so abundant in the island that detailed information necessary for a study of the many types is lacking, and a definitive work on the subject is not possible at this time.

The accompanying map illustrates the several karst types: karst plains, swamp karst, shoreline karst, conical-hill karst, and karst uplands, following the classification of Acevedo. (1) Herewith, the writer outlines in a general way the relationships between the geology of Cuba and the differing karst types found there.

**KARST PLAINS.** Typical development of the karst plains is abundant in nearly all six of the Cuban provinces, though they are most abundant in the west and in Camagüey. The Guines and Paso Real formations are the principal units which underlie the karst plains.

**SWAMP KARST.** This type of karst is common only in the Zapata Peninsula and in some localized areas of the Cuban shoreline. This karst type is underlain by relatively young deposits of Pleistocene age.

**SHORELINE KARST.** Shoreline karst is present along almost all of the Cuban coastline where swamp karst is not present. The age of the underlying rocks generally is Pleistocene.

**CONICAL-HILL KARST (MOGOTES).** Typical conical-hill karst occurs in the provinces of Pinar del Rio, Habana, Matanzas, and Oriente. In Pinar del Rio, this type of karst is developed on limestones of the Upper Jurassic of the Artemisa, Viñales, and Jagua formations. In Habana and Matanzas provinces, the conical-hill karst is developed mainly on Miocene limestone of the Guines and Jaruco formations. In Oriente Province, conical karst topography is developed on the Miocene Guines and Eocene Guaso formations.

**KARST UPLANDS.** Under this grouping, the writer includes all karst topography, such as tablelands, hills or highlands, with the single exception of the hills which constitute the conical-hill karst. The origins of these various types of karst are very dissimilar, and are not discussed here.

**CONCLUSION.** As the map indicates, karst development is one of the most important geographic phenomena of the Cuban landscape. The several types are present in almost all of the provinces. Each has specific characteristics which should be the object of future detailed studies.

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Figure 1.

(4) Iturralde-Vinent, M. A., "Mapa de la Distribución Tentativa del Carso de Cuba," unpub., scale 1 : 1M.

A larger than usual number of geographers have been attending the National War College and the Industrial College of the Armed Forces located in Washington, D. C. Alvin A. Munn was a graduate of the National War College Class of 1966. Malcolm E. Robinson and Richard Eaton are currently students at the National War College. Roy W. Gillig is currently a student at the Industrial College of the Armed Forces. These colleges are the top-level Department of Defense colleges, designed to enhance the preparation of selected personnel for the exercise of joint and combined high-level policy, command and staff functions and for the planning of national strategy. Classes are small and attendance is by appointment from a select group of nominees from the Department of Defense, the Military Services, the Department of State and a few other related government agencies.