Maldonado:

With the ICSID Education Seminars we have so far tried to eva-
luate our past and present pedagogical experiences, mainly our
experiences in some of the leading schools in Europe and in the
United States. We have also tried to point out the most effec-
tive way to translate these experiences into manageable tools,
structures and procedures, which may enable others to face suc-
cessfully design education in other parts of the world. The re-
sults of our work were published in the reports of the Bruges
and Ulm Seminars, and will most likely wind up with this report
of the Syracuse Seminar.

Our attempt at evaluation of experience was right. We were a-
ware that there were many people, all over the world, who ur-
gently needed precisely the kind of recommendations and guide-
lines which we, with the experience we had acquired, could give
them. It was, in fact, our responsability to inform those with
less experience so they might avoid making the same mistakes we
ourselves had made.

However, if we should insist in this approach during future se-
minars, we would be changing a legitimate communication of past
and present experiences into an illegitimate celebration of to-
day's design education. In other words we shall be playing a
conservative role, for it is obvious that our actual design e-
ducation system is not a well-structured system; it is equally
obvious that it is not mature enough to be offered as a valid
universal model. So far, our approach has been to give advice,
and we have established reasonable guidelines for the develop-
ment of new schools. In the next seminar we must begin to look
ahead, and to consider seriously the possibility of radical
changes in design education. It will not be an easy task. Com-
placency and conformism dominate today the mind of the great
majority of design educators. They seem to be persuaded that
all possibilities have been explored and exhausted. Conversely,
I believe in the urgent necessity of developing a new pilot
model for future design education.

At this point, I hope you will excuse my broaching the subject
from a very personal point of view. As you all know, I have
never been an armchair design educator. I have worked for 13
years intensely and patiently in everyday educational work,
but I must confess that I am very uneasy about the results.
In the Ulm school, we have no doubt contributed to clarify cer-
tain problems, but our conclusions are not convincing. We have
remained attached to the old Bauhaus problematic, introducing
at best, only minor reforms. Otherwise said, we have been re-
formers, but no more than that. A corageous and radically new
approach to design education is necessary in our present tech-
nical civilization. It is now clear that the old structures
and concepts no longer work satisfactorily. Therefore, I have
begun to consider without preconceptions and in a merely spe-
culative manner, a possible way of developing a new concept for
design education which could meet the new needs and realities
of our Society.

We must once more believe in the power and strenght of ideas.
The problem of design education is precisely that we do not
have enough new ideas, and the attempt to conceive these must
be our new task. We are at present faced by an erosion of both
our physical and social environment such as has never before
been known. There is continuous growth without control. In fact,
design education up to the present, has mainly trained people
to favour this chaotic growth instead of training them to con-
trol it. We should be able to conceive how it is possible to
develop design for control - design for mastery of growth.

The alternative to chaotic growth is the control of growth. The
problem of design education in this context, is that obviously
we cannot obtain control of growth without modifying today's
stuctures of design education.

One of the most negative experiences we had, was the attempt to
develop a design school isolated from a university - as a com-
pletely independent pilot model. This was an illusion. Most of
the negative aspects of the Ulm School are consequences of this
approach. To realize this however, is only the first step which
must necessarily be followed by another one: finding the right
way to successfully integrate a design school into a university.

The major difficulties in doing so arise from the inefficient
structures of the university itself. Universities are depart-
ment-oriented and not problem-oriented.

Industrial design schools are assumed to be concerned only with
professional work at a low level and their role in civilization
is not understood. Universities must be radically transformed
so they can become problem-oriented: only then will they be
able to deal with industrial design education.

A problem-oriented university could be bipolarized into two
large areas. Within these, work would aim at answering the two
antagonic and at the same time complementary questions: 1) How
to favour growth? 2) How to control or master growth? Today,
most of the people involved in pure research, applied research,
and development activities try, directly or indirectly, to find
the answer to these two questions. The following diagram tries
to show what the system or network of a problem-oriented uni-
versity might be.

DIAGRAM 1.

Explanations of diagram No.1:

PS (Physical Sciences), BS (Behavioural Sciences), H,A (Humani-
ties, Arts), T (Technologies: hardware technologies, i.e. mecha-
nical and civil engineering; software technologies, i.e. system
engineering, computer sciences).

G (Growth): growth here includes increase of population in size, density and complexity. In this context, "population" is understood in a very broad sense. Not only as population of people, but also as population of products (objects, artifacts, devices, etc.🖉), population of resources (raw materials, energies, foods, etc.🖉)population of knowledge (scientific or technical information, data concerning all fields of human activities), population of technological processes, population of messages (signals, signs, symbols, etc.,) and population of relations and interactions between these many different populations.

C (Control): control is here understood as a set of planned operations and procedures aiming at mastering growth, that is, at avoiding the erosive and destructive character of the actual anarchic growth in the abovementioned populations. The𝜙 alternative to anarchic growth is not to relinquish growth but to contol growth.

T: Theoretical Field
E: Experimental Field
P: Planning Field

ES: Environmental Studies
ED: Environmental Design

G ↔ C (balance between Growth and Control): the interactive and coactive work carried on between ES and ED should exert a positive influence on the structure of our social and physical environment, otherwise said, it would create a dynamic balance between growth and control. This interactive and coactive work between ES and ED could take place in what we might tentatively name "Institute for Environmental Studies and Design". The diagram for such an institute might be as follows:

DIAGRAM 2.

Explanation of diagram No.2:

D (Design Courses)
R (Research Specialization), D (Design Specialization), M (Management Specialization).

RF (Refreshner Courses could be included for designers returning to the institute to improve and develop knowledge, ideas and methods).

Prof.(Professional Fields).

The main idea of this tentative model consists in the fact that after two years of preliminary design courses it is possible for the students to specialize at three different levels:

First level of specialization:

a) product environment (PE)
b) building environment (BE)
c) urban environment (UE)

Second level of specialization:

a) Research
b) Design
c) Management

Third level of specialization:

For instance a student who has chosen to specialize in Building
Environment (1rst.level) and Research (2nd.level), may at the
3rd. level decide to take up Industrial Building or Architecture
in hostile environment; a student who has chosen to specialize
in Product Environment (1rst.level) and Design (2nd.level) may
at the 3rd. level prefer to work in Design for Health Equipment
or Education Equipment.
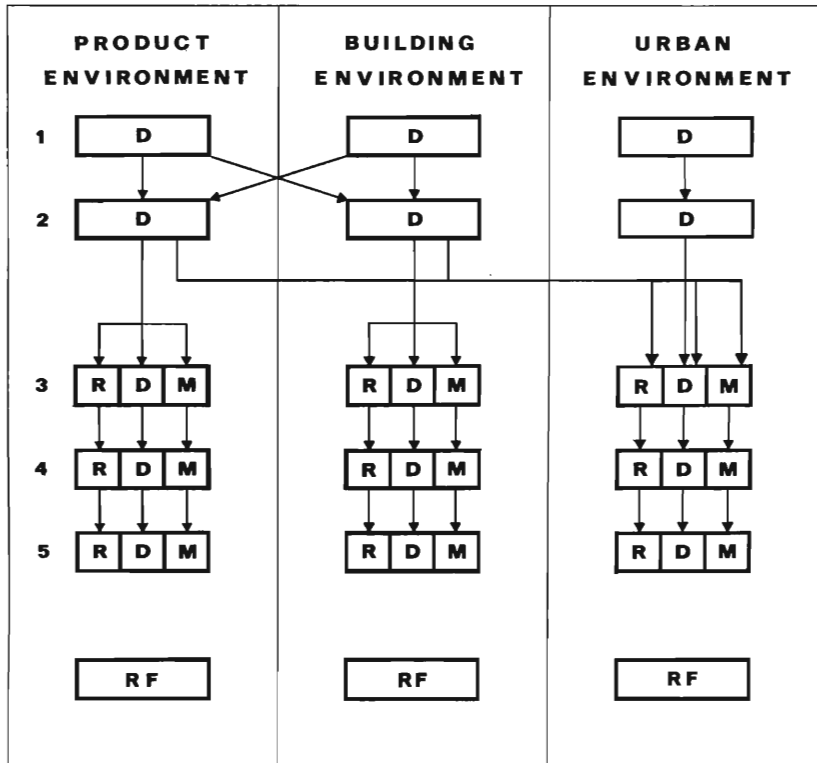
INSTITUTE FOR ENVIRONMENTAL STUDIES AND DESIGN

DIAGRAM N°2.#1

Spiegazione del diagramma n. 2

D (Corsi di Design)
R (Specializzazione di Ricerca) D (Specializzazione di Design)
M (Specializzazione di Management)

Ag (RF) (Corsi di Aggiornamento potrebbero essere programmati per
designers che ritornino all'istituto per ampliare o sviluppare la
loro conoscenza, le idee, i metodi).

Prof. (Campi professionali)

L'idea generale in questo modello proposto oonsiste nel fatto che
dopo due anni di corsi di design preliminari sia possibile per lo
studente specializzarsi a tre livelli differenti:

Primo livello di specializzazione
a - il prodotto e l'ambiente (PA)
b - l'edificio e l'ambiente (EA)
c - la ci8tà e l'ambiente (CA)

Secondo livello di specializzazione

a - Ricerca
b - Design
c - Management

Terzo livello di specializzazioné

Ad esempio lo studente che abbia scelto di specializzarsi in
EA (1 livello) e in Ricerca (2 livello) può al 3 livello decidere
di occuparsi di Architettura Industriale o Architettura in
Ambiente Ostile; uno studente che abbia scelto di specializzarsi
in PA (1 livello) e Design (2 livello) può al 3 livello scegliere
di lavorare nel Design per Attrezzature Sanitarie o Attrezzature
Educative.