What actually characterizes Cemus? Student engagement? Innovative courses? Its focus on solidarity and impartiality? Taking initiative (the fact that an entirely new center was established within higher education)? Its interdisciplinary approach? Student-led activities? Hope (doesn’t the actual establishment of Cemus show that changes that make the world more humane, less destructive and more tolerant are possible)? All these things are characteristics of Cemus. But could it be said that an essential part of the work—a common denominator running through all these aspects—is the crossing of boundaries? This is the idea we want to discuss in this chapter, with a focus on the educational dimension. Due to the special nature of Cemus, the work cannot be anything other than transboundary, given the academic context in which it exists. But what kinds of boundaries are crossed, what does this mean, and what are the consequences?

The Crossing of Boundaries Between Different Educational Approaches

The main driving force behind Cemus and its activities is the will to change—to contribute to a better world. Its courses should not sim-
ply generate new theoretical knowledge and insights, but also lead to actions that have a real impact on the necessary changeover to a sustainable society. In other words, it means an approach to education where knowledge in itself, in terms of pure know-how, is not sufficient, but where its primary value is its application and continuous use in societal processes. Indeed, it could be said that at Cemus there is a direct, instrumental approach to education and knowledge that is based on responsibility for the world’s future.

Seen in that light, it may seem somewhat contradictory that one of our long-standing courses was called Environment and Development Studies: Theory and Analysis—a course that expressly emphasises theoretical aspects. But it is significant that the focus on “theory and analysis” is to highlight and examine central and often unexpressed assumptions and norms in the environment and development field with the aim of equipping students to work for and change a practical reality of concrete problems. Hence, core questions are e.g.: Why do different actors arrive at such different conclusions about the state of the world and how questions of global survival should be addressed? Why are we unable to solve the problems that affect us all? A key assumption of the course itself is that an adequate understanding of the complexity of this practical reality can only be arrived at by identifying and analysing the different conceptual, ethical and normative perspectives of nature/environment and development on which these issues (again often tacitly) are based. In addition, this understanding is in turn a prerequisite for being able to change this practical reality. The deepened theoretical perspective should thus serve the expressed practical and determined purpose.

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1 The course is now called Sustainable Development—Values, World-views and Visions [Hållbar utveckling—Värderingar, Världsbilder och Visioner].
2 Here we are not talking about a one-way causal connection where the conceptual framework (or “the superstructure”, to use a more established terminology) determines the practical reality (or “the substructure”). The social totality is made up of a ceaseless flow of complex feedback between these two dimensions where “the substructure” also has a determining effect. The precedence that Theory and Analysis assigns to the conceptual dimension is based on the need to identify existing but rarely visible basic assumptions and norms.
However, at the same time it would be wrong to claim that theoretical sustainable development literacy has no value, or that students’ search for new knowledge is not regarded as an important and completely central phenomenon. Rather, it is a question of a dialectical approach in which both components play an equally significant role—no work for change without knowledge on which this work can be based, no practice without theory (however implicit this might be)—in the same way as all theory derives from practice. However, given that this dialectic is overshadowed by the seriousness of the global environmental crisis, Cemus tries to ensure that theoretical knowledge, knowledge in itself, always reflects practice. Giving a practical orientation like this more prominence means crossing the boundary between a more traditional approach to education, where the theoretical and the practical are clear-cut. To some extent all learning is practical, i.e. all disciplines deal with both theoretical and practical problems. But what makes Cemus unique is that the practical contexts and the possibility for change beyond the university constitute a highly important dimension in determining how the courses are shaped. Taken to its logical conclusion, the reasoning is that the prevailing boundary between theory and practice is abolished. Indeed, you could say that the educational ideal that Cemus strives towards is a kind of Aristotelian *phronesis*.

It almost goes without saying that courses that are directed towards practical change and based on a highly critical view of the state of the world also need to remain value-neutral on the one hand and guard against the temptation to adopt a biased, one-sided normative perspective on the other. If Cemus, in accordance with its stated principles, is to “work for a long-term, sustainable, social development that safeguards all people and the whole world,” and at the same time stimulate and encourage students to engage in practical action, this ambition must be reflected in the teaching methods used. How might this be done?

The most immediate answer is that the basic aim can be furthered by simply educating students about “the state of the world”: furnishing them with information about environmental pollution
in different areas, levels of poverty etc, i.e. a kind of fact-oriented environmental education. While this is indeed an important part of Cemus’ work, it does not completely reflect the center’s educational goals. In environmental education research, the fact-oriented tradition is characterized by e.g. a view of science as the solution to all our problems and a view of environmental problems as a lack of knowledge that can be remedied by more research, especially within the natural sciences, and by correct information to students and the general public. To all intents and purposes this implies that (natural) scientific experts will solve the environmental problems while teachers will transmit the relevant scientific facts and concepts to the student. As we shall see below, such an approach does not reflect Cemus’ efforts to cross the subject boundaries.

Given that a fact-oriented education does not reflect the basic aims of Cemus there is, so to speak, no turning back. The courses cannot simply teach about the state of the world, but must also to pose and seek answers to questions that are associated with the normative and the evaluative: Why do these problems arise, and how should they be solved? Why are so many of the proposed solutions so diametrically opposed and mutually exclusive? And what are the practical consequences (ecologically, economically, and socially) of these suggested solutions and approaches?

Cemus’ normative efforts and conscious standpoint that a university education ought to contribute to a “better world” could be said to belong to a normative environmental education tradition. This type of education aims towards students actively developing environmentally-friendly values on the basis of scientific argument and learning how to act in sustainable ways. Up to now, there does not seem to be any disagreement about this. However, the normative tradition presupposes that there are causal connections between knowledge about environment and developmental problems, sustainable values and sustainable behaviour. In addition, it often dictates which values are reasonable. This dimension does not match up with the Cemus view that the plausibility of a value judgment can only be determined (at least temporarily) after careful and system-
atic critical reflection and argumentation. In spite of such important
differences, both Cemus and the normative tradition emphasize the
importance of student-led education.

Before going any further we ought to make it clear that the key
issue in the above argument is not about the relation between facts
and values, objectivity and value-normativity, that is often taken for
granted in education and by society at large. In the Swedish tradi-
tion there is a positivistic heritage, which is still strong, according
to which education should deal with “pure facts” that are free from
inherent values and normativity (which obviously is a value judg-
ment in itself and not a natural phenomenon). But the argument
is based on a dichotomy that is more ostensible than real. Given
that facts are entities that are used by humans, they will inevitably
be incorporated into meaning making contexts—and thereby as-
sume the character of representation, of interpretation. In this way
we could concur with Nietzsche and say that there are no facts,
only interpretations. But in some cases pure facts are neither the
result of interpretation nor need to be interpreted (e.g. the distance
between the moon and the Earth is approximately 380,000 kilome-
tres). However, such facts seldom have any real significance, and
whether they have has to be determined in relation to the problems
being addressed. Facts are only important when they are interpreted
and assigned meaning or value, when they become part of a mean-
ing making context. (Is knowledge about the distance between the
moon and the Earth important? Is making a trip to the moon pos-
sible or worthwhile? What reasons would there be for making such
a trip? etc.)

That this stress relation tends to deconstruct itself does not mean
that the problem of a one-sided, normative bias in the education
disappears. This problem is possible in all types of education, but are
perhaps more apparent in an educational context like Cemus. There
is a danger in this, but also an important opportunity. There is no
doubt that one-sided and normative frames that are not subjected to
critical analysis pose a serious challenge, regardless of whether they
operate implicitly or explicitly. Since the emphasis of the education
that Cemus offers is closely linked to the normative and the evaluative, in line with Cemus’ basic principles, this dimension cannot be avoided. But this does not necessarily mean that Cemus education is biased. Emphasizing the normative does not have to mean taking a stand, being biased. Rather, the aim of Cemus courses is to factually and fairly draw attention to the variety of approaches, assumptions and controversies—to allow for as much normativity as possible—and include these in a continuous, critical dialogue based on the superordinate perspective: that the state of the world is not sustainable. It is especially important that the courses try to highlight the normativity that is traditionally assumed not to exist, where it has been naturalized as ideology, since that is a prevailing problem in the established debate’s way of dealing with environment and development issues.

This means that Cemus’ approach can best be likened to a third environmental education tradition—pluralistic environmental education. This type of education aims to help students to develop the ability to critically evaluate different perspectives of environment and development problems. From a pluralistic perspective, environment and development problems are due to conflicts between different human interests. They are thereby regarded as social constructions in the sense that different people define them as problems from different points of view. In this tradition, and in line with Cemus’ approach, scientific facts are not regarded as moral guides, since they contain contradictory conceptions and interpretations and because knowledge is viewed as an inter-subjectively imposed social construction. Another similarity is that the environment theme is widened to stretch across society as a whole—environment and development—which strengthens the conflict-based perspective through links with the social development of society. This tradition also focuses on the democratic aspect of education, which means an emphasis on incorporating real opportunities for student-led contributions in the courses. This was especially the case in the Cemus course for which the authors were responsible, where a variety of teaching methods were used in order to stimulate and structure the
students’ critical reflection on the basis of their own previous experience.

In this light, it is clear that critical thinking is of central importance at Cemus: in courses where the normative is both inevitable and highly charged, critical thinking is unavoidable. The very awareness of how closely the activities are intertwined with the normative constitutes a distinctive opportunity. When Cemus courses analyze the norms and basic suppositions of the currents running through the field as a whole, it becomes clear that the grounds for these currents are contingent and constructed. In this way, the view that there are natural and essentialistic relations and categories is problematized. Instead, it is made clear that these are the result of specific choices. The significance of identifying and analyzing basic assumptions is thus not only that students are confronted with a variety of approaches and normative structures, but that they also become aware of the constructions on which they are based. By encouraging thinking outside or beyond the accepted frames, this approach facilitates a way of thinking that has the potential to be more impartial in terms of its awareness of the prerequisites of different approaches and norms. But the approach is also used self-reflexively as a way of stimulating students to reflect on and critically observe their own basic assumptions—conscious or less conscious—that they bring with them to the course. This double-action perspective is the model for Cemus education in general and had an especially prominent place in the course Theory and Analysis.

The Crossing of Disciplinary Boundaries
The transboundary educational model on which Cemus is based is already hinted at in the center’s name. The “and” in the “Center for Environment and Development Studies” indicates that questions of survival are complex and that environment and development issues are intertwined. It also expresses that this complexity requires new approaches to be understood and explained in the best possible way.
The most frequent transboundary-format at Cemus is multidisciplinary. Multidisciplinary courses allow for flexibility of “movement” across the disciplinary boundaries. Ulf Sandström defines multidisciplinary research in the following way:

One should ... differentiate between the interdisciplinary and the multidisciplinary in so far as the former represents situations where the actual research process integrates elements from several different disciplines, whereas the latter alludes to projects that only consist of additive collaboration between people from different disciplines.3

You could say that Cemus’ multidisciplinary courses (in contrast to the inter- and transdisciplinary elements in Cemus’ courses) have no ambition to formulate new questions. In multidisciplinary higher education only disciplinary questions are posed and responded to with specific disciplinary theories and methods. In other words, multidisciplinary environment and development studies do not in the first instance aim to question the respective disciplines’ established interpretive frameworks. This approach is thus mainly concerned with adding different disciplinary perspectives. Multidisciplinary courses are therefore organised so that a common theme, for example economic, environment and development issues, are analysed from different disciplinary perspectives.

However, Sandström is not completely correct in his claim that multidisciplinary education (or research) does not integrate elements from different disciplines. When we add different perspectives in order to understand how to address a problem from different angles, in most cases an additive integration of knowledge takes place, at least on those occasions when we learn something new.

The learning process does not lend itself to being divided into separate disciplinary compartments. Learning takes place when students encounter new or unfamiliar information and aided by their previous experience individually or with others process it so

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that new meaning is created. In this way, you could say that trans-boundary education integrates elements from different disciplines, even if we in multidisciplinary courses do not put as much emphasis on including integrating educational situations.

The second most common type of transboundary course at Cemus is interdisciplinary in nature. Like the multidisciplinary courses, these aim towards processing already established questions or problems with the aid of theories and interpretive traditions from different disciplines. The differences consist of the following:

For the sake of simplicity we should regard interdisciplinary science as an integration of theoretical fragments and methodical tools from different disciplines with a view to solving a specific scientific problem—with the ambition of injecting new knowledge of a kind that has not been possible within the parameters of a “narrower” intradisciplinary perspective.4

In contrast to multidisciplinary courses, the aim of interdisciplinary education is to offer students the opportunity to learn something that is not possible to learn without intradisciplinary methods and theories being questioned.

It could be said that Cemus interdisciplinary courses are based on the premise that the disciplines’ different theories and methods are interpretation frames and not direct reflections of a factual world. With this, scientific interpretive models are also put into and influenced by their political, cultural, religious, economic and ecological contexts. Hence, the power relations that prevail between different interpretive models, theories and methods and their predecessors are often problematized. Here, a gender- and queer perspectivization of both environment and development issues as the disciplines’ interpretative frame plays an important role. This critical examination often takes place by the course’s Coordinators introducing and

leading carefully selected, goal-oriented, interactive evaluation exercises, role play, argumentation games, written exercises, etc.

Finally, Cemus also offers courses with so-called transdisciplinary elements. In contrast to the multi- and interdisciplinary educational formats, transdisciplinary higher environment and development studies are mainly characterized by a search for new problems to consider and process. Whereas multi- and interdisciplinary education integrates methods and theories from different disciplines in order to provide new solutions to already established environment and development problems, transdisciplinary education aims to formulate problems that lie outside the scientific community by crossing the boundaries between knowledge systems. This also presupposes a new, partly tentative conceptual apparatus.

An example from the course *Global Environmental History* is when students under the guidance of established artists from the Örnsköldsvik Graphics workshop⁵ sculptured their own personal environmental history. This experience was processed under the guidance of the course coordinators in such a way that the boundary between the approaches to art and science were problematized and gave a new dimension to how one can relate to and formulate environmental history issues and questions.

Another example of transdisciplinary education is that in the course for which the authors of this article were responsible, representatives from the civil society, representatives of political parties, companies, embassies, political leaders and negotiators, journalists, etc., were invited to take part on an ongoing basis. This too was part of a conscious strategy to cross the boundaries between different knowledge systems and to critically examine the solutions and analyses that the representatives for these actors offered.

By way of summary, we would like to point to the following: Firstly, that Cemus makes use of these three kinds of transboundary environment and development studies as educational strategies rather than striving to establish a certain type of teaching. Different issues and different courses require different strategies. Secondly, in

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⁵ Örnsköldsviks kollektiva kulturverkstad (ÖKKV).
comparison to inter- and transdisciplinary courses, multidisciplinary courses may not require didactically conscious choices on the part of the course coordinators in order to integrate different disciplinary theories and interpretive frameworks beyond additive integration. Nonetheless, multidisciplinary teaching strategies are better than inter- and transdisciplinary strategies in those cases where there is no requirement for advanced subject integration. Thirdly, the integration of subject matter in teaching is not about attitudes, but about careful and goal-oriented planning of the course content and its organization. This does not happen by itself. At the end of the day it is a matter of carefully formulated allocations of responsibility, work plans, timetables, evaluations, feedback and hard work.

The Transgressing of Didactic Authorities

The most radical form of tranboundary work at Cemus is perhaps the approach to established norms and structures in the actual teaching situation—what we refer to here as didactic authorities.

The most common didactic authority in academic education is the researcher as teacher and examiner. The fact that Cemus was established as a result of student initiative and, not least, that the activities are run by students, means that this fundamental academic hierarchical order has been overturned. At Cemus, student influence spans across the entire spectrum of activities: from the starting of new courses at the students' initiative to the courses being administered and run by course coordinators who also set up and lead quality-assured course work groups consisting of senior lecturers.

It should be pointed out that the collaboration and mutual exchange between the students working at Cemus and the senior lecturers involved in the work groups is an essential ingredient. Without their involvement and the knowledge they represent, Cemus courses could not be run. But the crucial point of our argument is the crossing of the structural relationship that traditionally characterizes all higher education. In spite of the fact that senior (guest) lecturers are responsible for the majority of the lectures in Cemus
courses—which can be regarded as a traditional educational format—the students at Cemus encounter other students as important as these senior lecturers in the teaching situation.

The course coordinators act as the catalysts as well as the glue that holds a course together: they are responsible for introducing the topic at each session, formulating examination exercises (together with the work group), and leading some of the seminars and group exercises. The course coordinators thus have a consciously thought-through didactical role that, due to Cemus’ critical-constructive approach to the course and knowledge content, often implies that they function as the didactic authority.

In that course coordinators, who are primarily responsible for the courses, integrate the different stages and knowledge content and are sometimes also involved in the teaching, Cemus courses can be characterized as “management from below”—a grass roots education.

That the courses are student-led is not the only way in which traditional forms of didactic authorities are transgressed: Cemus’ courses regularly include pedagogical forms that “activate” the student, such as interactive writing and response exercises, different kinds of evaluation exercises and interactive course evaluations. In this way, the student is also assigned an active role in relation to the course coordinators, which can imply a “transgressing of the transgression,” in the sense that the students on the courses are themselves given the opportunity to function as didactic authorities. In short, these transgressions mean an activating role for students.

Summary

In this chapter we have approached Cemus on the basis of what we regard as the common denominator of the center’s work with the diversity of education formats offered: the crossing of boundaries. We have pointed out that Cemus educational activities involve a crossing of boundaries in three different areas: approach to education, the disciplinary perspective and what we call didactic authorities.
This boundary crossing is partly a result of the fact that Cemus is an anomaly within higher education—it was created through student initiative and is run by students—and partly reflects an inherent necessity in actual environment and development issues where movement over subject boundaries is needed in order to address the problems and suggest solutions. It is our hope that this discussion will lead to a better understanding of the radical and fruitful nature of the work and also contribute to the academic discussion about what higher education for sustainable development can entail.

David O. Kronlid holds a ThD in Ethics and is a senior lecturer at the Department of Education at Uppsala University. He has worked as a course coordinator, university lecturer, course developer, supervisor, examiner and mentor at Cemus since 1998.

Robert Österbergh is a PhD student in the English Department at Uppsala University with an emphasis on contemporary American lyric poetry and critical theory. He worked as a course coordinator and course leader at Cemus during the period 1998-2005.