Meeting 17 • 26 May 2009 • Tuesday

Version: **5/26/09**

People: Benoit, Montaigne; ~~Breedlove, Clifford~~ E.; McDonnell, Kelsey C.; Orcutt, Kathleen S.; Pennington, Laurissa B.; Salinas, Victor; Tasi, Joana; Watters, Erin.

Today

(X') = anticipated time in minutes (total= 110' minus break)
(#0001) etc.=item in document collection (will be explained in class)
Key to notes added AFTER the class meets:
√ = topic / activity that was adequately dealt with during the class
+ = topic needs more attention & will be resumed at next / subsequent meeting(s)
- = a topic / activity that was proposed but not carried out - will be taken up later
~~Struckthrough text like this~~ = a topic / activity that was proposed but ~~not included is not going to be taken up after all~~
Italic text like this = *comments* after the meeting

Week 8: More about the projects; special presentations; how to wrap up the course with style	
	materials:
	(20' or more) More project discussions; if anyone is still lacking a course idea (Project 3), I recommend looking at programs where ordinary students (=not language students) make study / work trips abroad (ecology in Costa Rica, etc.) and developing a CBI component for them; see: www.ahastudyabroad.org; earthwatch; courses at abroad equivalents of community colleges (German: VHS / Volkshochschule)
	(10') Debrief Russian Flagship Program presentation from previous meeting
	(10') FLA article about engineering & German (#0712)
	(10') Two little CBI topics: Waldorf School marionette play; International High School IB competition
	(20') how CBI relates to careers in language teaching; CBI-related grant possibilities; links: Humboldt Project grants page; Albanian project; PSU CAE (see link "resources" and also "International CBL"); PSU OAA faculty development resources, including AIM grants; example of US DOE grant site (CFDA 84.017)
	(10') There will be no final exam. What will we do instead? Project Fair? Symposium? __?

Upcoming class meeting(s) (#18 • 28 May 2009 Thursday)

Emphasis: course-length CBI; beyond this course

Further topics: German 101 "Traumreise / Dream Trip" project as starting point for a for-credit CBI module

Team-Based Learning (Michaelsen book), resources 0164, 0191, 0192, 0193, 0431;

If not read already: Portland Public Schools "Recommendations for the Second Language Minimum Performance Standards" (#0010a)

0094 (Integrating Language & Content: Lessons from Immersion); 0114 (Lesson Planning); 0270 (Content-Based Language Instruction, as of 1986); 0082 (Discovering Science and Technology through American History)

Second-language and ESL modules for the Humboldt Project

Eugene Waldorf School presents marionette puppet show

The silk marionette puppet show, "Ilsa and the Seven Sheep," will be presented by the Eugene Waldorf School at 3 p.m. Sunday at Tsunami Books, 2585 Willamette St. The show is free and appropriate for children ages 2 to 8. For information, call the school at 683-6951 or visit www.eugenewaldorf.org.

International High awards four students

Eugene International High School has awarded four students its Northwest International Baccalaureate World School Award, given to students who embody all aspects of the International Baccalaureate learner profile. They are Tatum Sohlberg, Sarah Appelbaum, Margo Faulk and Maiyra Espinoza. The students have proven themselves naturally curious; knowledgeable; able to think critically and creatively; expressive; principled; open-minded; tolerant of other perspectives, values and traditions; caring; balanced; reflective; and willing to take risks.

Oak Hill senior earns $1,000 scholarship

Oak Hill School senior Victoria Morales-O'Conner has been awarded a $1,000 Elizabeth Baricevic/Josefina Botta Memorial Scholarship, given each year to outstanding language students in their senior year. She will apply the scholarship to her education at Pitzer College beginning this fall. Morales-O'Conner, who is student body president, earned the award based on her excellence in foreign language, overall academic achievement, integrity, goals and values. She studied French and Spanish at Oak Hill, and scored passing marks on foreign language AP exams.

final; optional, non-graded
5' each on project of choice (2 or 3)
5:30 - 6:30 + afterward

A Problem-Based Learning Approach to Integrating Foreign Language Into Engineering

FCA

Summer '07

David O. Neville
Utah State University

David W. Britt
Utah State University

Abstract: *Problem-based learning (PBL) is an instructional methodology placing primary emphasis on students solving realistic problems in a team-oriented environment. Here we discuss using PBL to integrate a language for specific purposes (LSP) track into an undergraduate biological engineering curriculum as a way to prepare students for an engineering career requiring job-specific foreign language skills. In Part I we review PBL theory and anticipate problems that may arise when merging it with an LSP track. In Part II we detail the development of a PBL/LSP module, including module performance objectives and assessment instruments. Areas of potential future research also are highlighted.*

Key words: *engineering, language for specific purposes, problem-based learning*

Language: *Relevant to all languages*

A Case for Using Problem-Based Learning to Integrate a Language for Specific Purposes

In an effort to put a halt to declining foreign language enrollments, which Welles (2004) notes have dropped from 16.1 per 100 institutional enrollments in 1960 to 8.6 per 100 institutional enrollments in 2002, foreign language departments nationwide have begun to initiate language for specific purposes (LSP) courses. Von Reinhart (2001), for example, reports that since the inception of the International Engineering Program at the University of Rhode Island, the number of German majors at the university has increased from 5 in 1987 to 91 in 2000. This has allowed the German program to offer more upper-division courses in German culture and literature, graduate more students with context-specific language skills and cross-cultural competence, and cultivate relations with international companies seeking graduate students with highly demanded skills.

David O. Neville (PhD, Washington University in St. Louis) is Instructional Designer at Utah State University in Logan, Utah. David W. Britt (PhD, University of Utah) is Assistant Professor of Biological Engineering at Utah State University in Logan, Utah.

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TABLE 2

Overview of a Sample PBL/LSP Semester

(cf. Figure 1)

Module	Subject	Instructional Goals	Artifacts and Supplemental Activities
1.	Introduction to hemodialysis and related human physiology; articulation of problem space and development of potential solutions	Historical development of hemodialysis and its physiological impact; research methods and materials	8- to 10-page team design brief in German; 3- to 5-page student paper in German on the history of hemodialysis and its physiological impact; student and team journals; biological engineering and German quizzes; module debriefing
2.	Short- and long-term hemodialysis complications	Sterilization methods, bacteria, biocompatibility, and microbiology	3- to 5-page student paper in German on bacteria and sterilization methods; student and team journals; biological engineering and German quizzes; module debriefing
3.	2D membranes and 3D hollow fibers	Modeling and optimization of design; material science, mass transport, ultrafiltration, and surface chemistry	3- to 5-page student paper in German on ultrafiltration and surface chemistry; student and team journals; site visit or virtual tour of Fresenius Medical Care North America; biological engineering and German quizzes; module debriefing
4.	FDA; economics and health care; future of hemodialysis and regenerative medicine; intellectual property and patents	Macrolevel analysis and economic feasibility; cell cultures	8- to 10-page team project summary in German; 3- to 5-page student paper in German on German health care system; student and team journals; video; biological engineering and German quizzes; module debriefing
5.	Capstone experience	Synthesis of prior knowledge	8- to 10-page team capstone summary in German; student and team journals; semester debriefing

is performed, the parameters of correct performance, and the criterion used to measure this performance. For the hemodialysis module, performance objectives are subdivided into three areas: analysis (history of hemodialysis and its physiological impact), implementation (preparation and evaluation of hemodialysis membranes), and evaluation (design brief preparation). For the sake of space, only the analysis performance objectives are detailed here:

> Given appropriate training in research methodologies and five bibliographic references of biological engineering journals in the German language, students will locate five additional journal references and five articles dealing with the topic of hemodialysis. Working together in predefined small groups and using the resources they have located, students will write a 3- to 5-page paper in German on the history of hemodialysis and fundamentals of renal physiology. As determined by criteria formulated in advance by the PBL/LSP tutors, the paper will manifest correct use of German vocabulary and syntax as well as demonstrate an in-depth understanding of historical development of hemodialysis and its physiological operations. In addition, students will demonstrate mastery of basic biological engineering knowledge and German vocabulary and grammar through onsite and online quizzes with a score of B or higher.

Development of Assessment Instruments

The final step, the development of assessment instruments for the hemodialysis module, should include two elements: (1) PBL instruments that measure the transferability of knowledge and development of metacognitive strategies and (2) non-PBL instruments that measure how well recurrent or rote aspects of module activity have been automated. PBL assessment instruments focus primarily on qualitative measurements that must be subjectively evaluated by PBL/LSP instructors and tutors according to predefined parameters. For the hemodialysis module, students should demonstrate transferability of knowledge during the module debriefing by answering predefined conceptual, redesign, troubleshooting, and prediction questions in German and English; delivering a student journal at the conclusion of each module; and preparing a design brief that demonstrates meta-analytic and project management skills.

Non-PBL assessment instruments are more in line with traditional assessment instruments and normally include criterion-referenced quizzes and tests, for both the target foreign language and biological engineering; essays evaluated primarily for linguistic or factual accuracy; and homework assignments that focus on the automation of specific skill subsets and knowledge (e.g., dative prepositions in German, biological engineering equations). For the hemodialysis module, students take criterion-referenced quizzes on German and biological engineering, submit homework assignments on German grammar derived from the provided hemodialysis articles, write two short essays in German on the history of hemodialysis and its physiological impact on the human body and the mechanical operation of hemodialysis membranes, and prepare a design brief in German. The essays and design brief must manifest grammatical and syntactical correctness and demonstrate a solid grounding in the mechanical operation of hemodialysis membranes.

Finally, because the motivation level of the learners is essential in determining the success of the instruction, assessment instruments based on the ARCS model (attention, relevance, confidence, and satisfaction) should be used (see Keller, 1987). In the hemodialysis module, a short ARCS survey for students is administered during the debriefing session.

Technology and Culture

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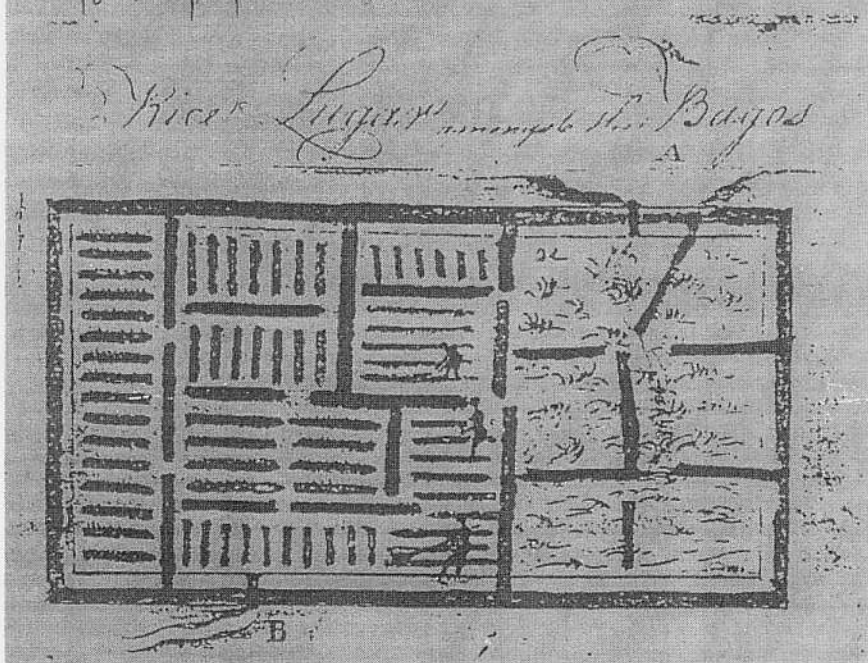

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Landscapes of Technology Transfer: Rice Cultivation and African Continuities

JUDITH CARNEY

By the mid-1700s a distinct cultivation system, based on rice, rimmed the Atlantic basin. The eastern locus of rice cultivation extended inland from West Africa's upper Guinea coast. To the west the system flourished in the southeastern United States, principally along the coastal plain of South Carolina and Georgia (fig. 1). On both sides of the Atlantic, rice growing depended on African labor. West African farmers planted rice as a subsistence crop on smallholdings, with surpluses occasionally marketed, while the southeastern United States depended on a plantation system and West African slaves to produce a crop destined for international markets.

While rice cultivation continues in West Africa today, its demise in South Carolina and Georgia swiftly followed the abolition of slavery. The year 1860 marked the apogee of the antebellum rice economy. Total U.S. production reached 187.2 million pounds, with South Carolina accounting for 63.6 percent of the total and Georgia an additional 28 percent.[1] Abolition doomed this rice plantation system by liberating some 125,000 slaves who grew rice along nearly 100,000 acres of coastal plain, the property of about 550 planters.[2]

DR. CARNEY is associate professor in the Department of Geography at the University of California, Los Angeles. She thanks Peter Coclanis, David Gamble, Paul Richards, the *Technology and Culture* referees, and the editor for their critical comments, as well as Chase Langford for his assistance with the graphics.

[1] *Agriculture of the U.S., United States Census Office 1860,* 8th census (Washington D.C., 1864).

[2] Douglas C. Wilms, "The Development of Rice Culture in 18th Century Georgia," *Southeastern Geographer* 12 (1972): 45–57; Julia Floyd Smith, *Slavery and Plantation Growth in Antebellum Florida, 1821–1860* (Gainesville, Fla., 1973), and *Slavery and Rice Culture in Low Country Georgia, 1750–1860* (Knoxville, Tenn., 1985); Pat Morgan, "A Study of Tide Lands and Impoundments within a Three River Delta System—the South Edisto, Ashepoo, and Cumbahee Rivers of South Carolina" (M.A. thesis, University of Georgia, 1974); James Clifton, *Life and Labor on Argyle Island* (Savannah, Ga., 1978), pp. viii–ix, and "The Rice Industry in Colonial America," *Agricultural History* 55 (1981): 266–83; Charles A. Gresham and Donal D. Hook, "Rice Fields of South Carolina: A Resource Inventory and Management Policy Evaluation," *Coastal Zone Management Journal* 9 (1982): 183–203.

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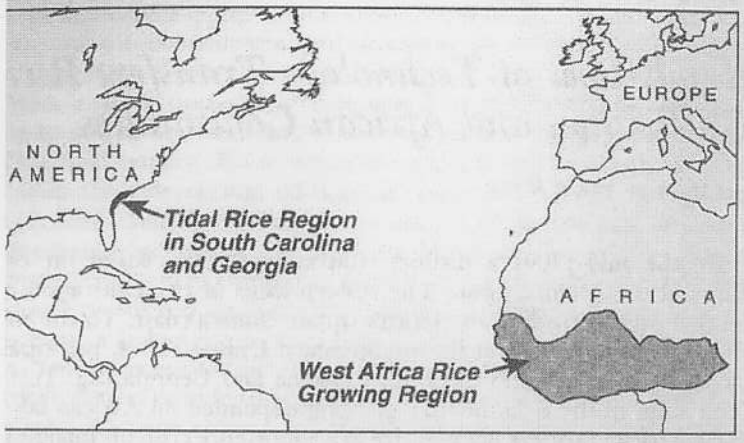

FIG. 1.—Rice cultivation along the Atlantic basin, 1760–1860. (All drawings by Chase ngford.)

The South's most lucrative plantation economy continued to in- ire nostalgia well into the 20th century, when the crop and the incely fortunes it delivered remained no more than a vestige of the astal landscape. Numerous commentaries documented the lifeways the planters, their achievements, as well as their ingenuity in shap- g a profitable landscape from malarial swamps.[3] These accounts ver presented African slaves as having contributed anything but eir unskilled labor. The 1970s witnessed a critical shift in perspec- e, as historians Converse Clowse and Peter Wood drew attention the skills of slaves in the evolution of the South Carolina economy. owse, writing in 1971, revealed the importance of skilled African bor in ranching and forest extractive activities during the early colo- al period. Wood's careful examination of the role of slaves in the rolina rice plantation system during the same period, published in 74, challenged the prevailing planter-biased rendition of the rice ory. His scholarship recast the prevalent view of slaves as mere field nds and showed that they contributed agronomic expertise as well skilled labor to the emergent plantation economy. Wood's evidence

[3] Ulrich B. Phillips, *American Negro Slavery* (New York, 1918); A. S. Salley, *The Introction of Rice Culture into South Carolina* (Columbia, S.C., 1919); Ralph Betts Flanders, *ntation Slavery in Georgia* (Chapel Hill, N.C., 1933); David Doar, *Rice and Rice Plant- in the South Carolina Low Country* (1936; reprint, Charleston, S.C., 1970); Alice Huger ith, *A Carolina Plantation of the Fifties* (New York, 1936); Norman Hawley, "The Old ntations In and Around the Santee Experimental Forest," *Agricultural History* 23 49): 86–91; Duncan Heyward, *Seed from Madagascar* (Chapel Hill, N.C., 1937).

rested on the presence of slaves in South Carolina from the onset of settlement in 1670, early accounts suggesting that slaves produced their own subsistence crops, and the contrast between a lack of prior rice farming knowledge among the English and the French Huguenot planters and the knowledge and skill of their African slave workforce.[4] Daniel Littlefield later built on Wood's pathbreaking thesis by discussing the antiquity of African rice farming practices and by revealing that more than 40 percent of South Carolina's slaves during the colonial period originated in West Africa's rice cultivation zone.[5]

While this scholarship has resulted in a revised view of the rice plantation economy as one of both European and African cultures, the agency of African slaves in its evolution is still debated. Current formulations question whether planters recruited slaves from West Africa's rice coast to help them develop a crop whose potential they discovered independently or whether African-born slaves initiated rice planting in South Carolina by teaching planters to grow a preferred food crop. The absence of archival materials that would document a tutorial role for African slaves is not surprising given the paucity of records available in general for the early colonial period, and because racism over time institutionalized white denial of the intellectual capacity of bondsmen. An understanding of the potential role of slaves requires other forms of historical inquiry.

This article combines geographical and historical perspectives to examine the likely contributions of African-born slaves to the colonial rice economy. A spatial approach is used to focus attention on the principal microenvironments planted to rice on both sides of the Atlantic, as well as on the techniques developed for soil and water management during the colonial period. The century 1670–1770 is crucial for examining these issues since it spans the initial settlement of South Carolina by planters and slaves as well as the expansion of tidal (tidewater) rice cultivation into Georgia. By analyzing the spatial and agronomic (i.e., land-management) parameters of rice cropping systems, this cross-cultural analysis emphasizes linkages between culture, technology, and the environment that traversed the Middle Passage with slaves.

The discussion has four parts. The first section examines the geo-

[4] Converse Clowse, *Economic Beginnings in Colonial South Carolina* (Columbia, S.C., 1971); Peter Wood, *Black Majority* (New York, 1974), pp. 57–64.

[5] Daniel Littlefield, *Rice and Slaves* (Baton Rouge, La., 1981). Betty Wood, *Slavery in Colonial Georgia* (Athens, Ga., 1984), p. 103, also indicates a similar trend for Georgia, noting that three-fourths of the slaves shipped there during the critical period of tidewater rice expansion (1766–71) originated from West Africa's rice coast.