

## RESILIENCE AND CHECKLISTS

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The key to productivity in the studio is self-discipline, openness to criticism, and a resilience to failure. Entering freshmen may have academic skills based on traditional classroom education but fail to adjust to the open-ended and self-directed aspects of studio.

Studies of resilience in economic systems point to the need for diversification — the means of elaborating multiple networks within main frames of reference that cushion failure of any one investment. Resilience in human behavior is improved by belief systems in some external frame of reference (history, religion, ethics, etc. — i.e. some “cause”) that acts as an ultimate POV for “putting things into perspective.”

Young students, compared to older adults, typically lack a historical or professional (design) basis for putting things into perspective. Many are vulnerable to simplistic schemes based on emotive-reductionistic systems, such as Ayn Rand’s *The Fountainhead*; others take refuge in causes widely recognized to be good and useful, such as sustainability or social justice.

The problem with such external reference points, which may or may not be complex, reliable, ultimately good, etc. is that while the reference itself may be rich with diversified layers of meaning, the *relation of architectural work* to the external POV is vulnerable to reductionism. In other words, the “cause” aspect of the external “good thing” limits the student’s ability to reflect, speculate, and diversify.

The idea of the checklist is to put students’ cherished causes on hold without accepting or rejecting them, while establishing a basis for a more local net of interests, grounded in the self-discipline of reliable work habits. The mechanics of the checklist allows for a certain neutrality that does not interfere with personal devotions to external “causes.” Automation’s benefits are primarily its ability to keep the process of inquiry open, resilient, and continually self-correcting. The *side benefit* of automation is diversification at the personal level, a forced detachment from the limiting mono-dimensional relationship to the external cause.

In his study of the use of checklists in industry and health care, Atul Gawanda noted that, while the primary objective of any checklist is to accomplish a sequence of items, the by-product is the suspension of the normal social and professional barriers that structure a work team. In the operating room, the nurses and doctors who review the checklist together are able to play roles in two different social systems, one defined by professional credentials, another based on the problem at hand. While the first system is good at establishing responsibilities, it limits the action of each individual. Its fundamental point of reference is, “Is this my job?” This works well for standard situations, but in the event of a crisis, focus shifts from responsibility concerns to problem concerns. The crisis redefines roles, and a nurse may

easily trump a doctor in playing the key role.

Such social re-adjustment has been studied extensively by anthropologists, and every student of introductory anthropology will remember the documentary film of !Kung Bushmen hunting expedition, where the role of leader shifts around from one team member to another based on the problems facing the hunters. In one case, leadership is given to who seems to the audience to be the least likely Bushman, inept with navigation skills, physically weak, etc.; but with well-known abilities to dream about the future. This kind of social diversification mimicks the diversification of economic systems, which manage liability by "not putting all the eggs in one basket."

Resilience is a resistance to collapse which allows individuals and economic/cultural systems to take on risk, learn from failure, and benefit from multiple perspectives. Resilience principles are nearly identical to the educational idea of the studio, where risk is added by open-ended projects, vague instructions, sometimes opaque instructors, and demands for skills that the learner must acquire without help or direction. The aim of the workshop is to condense the resilience idea just enough to make the point of "checklist training" evident, and to bring the participants in at the beginning of the process to explain its double structure. Beginning with simple exercises in personal use of checklists, the workshop culminates in a shared checklist, then checklists where items are unknown, "owned" by others, or out of order.

There will be no "ideology of the team," forcing members into a cooperation model using the argument that teams are necessary for success in private practice. As with the example of the !Kung Bushmen, the checklist is a means of bracketing the need for group cooperation in the context of personal disciplined self-inquiry. Yet, while "loners" stand to benefit as much as "team players," the point is to show how event-based concerns vs. responsibility-based concerns overlap and collate with any project. Diversification's relation to resilience is a base-line issue, not a justification for any ideology of group behavior.