Scaffolding for Discovery in the Third Plane

by Laurie Ewert-Krocker

Laurie Ewert-Krocker emphasizes the teacher's role in nature's prepared environment. Without directing or controlling the child's work, learning spaces can be maximized for concentration by connecting the adolescent's intrinsic learning to the beauty and order of the natural world. The most artful balance is the global understanding of the interdependent natural systems that can be integrated with the local array of daily detail and responsibilities to allow for the formation of comprehensive community values in the context of purposeful work.

Commitment to a Montessori approach to education tasks us with two simple but profound imperatives: aid the natural development of the human organism through its various stages of development, which promises to result in a "new" moral human being, and make transparent the interdependency of human beings on the planet. Interdependency serves both the individual and society, so that both can be free to follow a natural course of progress toward cooperation and unfolding human potential. These are the two principles, according to Maria Montessori, that lay the foundation for a science of peace:

> This science, in my opinion, should deal with two realities and show us how to benefit from them. The first is the fact that there is now a new kind of child; we have

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> succeeded in furnishing the child the means necessary for his normal development….The second is the fact that mankind today is in many respects a single nation. (*Education and Peace* 73)

All of our work is based on these two principles: from giving lessons on scrubbing tables to three-year-olds to harvesting and selling vegetables (accompanied by research on soil and water chemistry) with adolescents.

When we examine the various layers and details of those two primary tasks in an effort to better understand how and when we do our work—how we *scaffold* the child's activities and interactions in ways that discovery, engagement, focus, and the internalization of knowledge and understanding will be a natural, intrinsic process—it is vitally important to keep foundational principles in mind. We must work to remember and be conscious of why we do what we do and what our role in the environment as adults should be. It is not to direct or control what the child or adolescent does or to guarantee a checklist of lessons or content delivered or to validate our own work and success as "teachers." We are not teachers in the traditional sense. In fact, the term *teacher,* and even the term *directress*, seems too self-important as a title or a job description. *Guide* is closer to describing what we do, but it is still focused on the adult and is a kind of distraction from a focus on the child as learner. I almost wish we could re-label ourselves to indicate what we truly are: environment designers. If we called ourselves *environment designers*, when we walked into the environment on a day-to-day basis, imagine where our attention might be directed: to providing appropriate materials; to removing obstacles from the child's self-chosen activity; to observing the children for what engages and produces concentration and what gets in their way; to creating and maintaining beauty, order, movement, and integration with the natural world; to designing and maintaining the environment for the *children's* activity, not ours. Our presence, our modeling, and our lessons are, of course, a crucial

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part of that environment, but if we thought of ourselves primarily as "designers," we might be less likely to mistake our role as one of controlling and directing children and adolescents.

When you work with adolescents, it is particularly tempting to fall back on the illusion that we must "teach" skills and knowledge when we really cannot possibly control what another human being learns and thinks. Each human being's learning process is unique and mysterious. We can talk and tell, show and ask, and demonstrate but still never really know what thoughts, discoveries, ideas, reflections, or questions will arise out of a moment of interaction. We can only provide opportunities for interaction and discovery, for engagement and focus, for choice and contribution. The more developmentally on target those opportunities are, the more likely the interactions *will* engage the adolescent and give them possibilities for self-construction. If they are fully engaged—whether that engagement appears to us as social, intellectual, emotional, or physical—they *are learning* about themselves and the world. What we need to know and do to prepare those opportunities is what we

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have been trained to know and be aware of: the characteristics and needs of the human organism in this stage of development and the importance of watching and responding to what draws them in, what motivates them, what keeps them working toward a goal and an outcome, what drives them to contribute, produce, think, and question. As Montessori educators, we dedicate ourselves to careful observations and to ascertaining the unique needs and trajectories of individuals as they weave in and out of the social fabric and the collective work. We design the environment for the adolescent to discover "an understanding of the society which he is about to enter to play his part" (*From Childhood to Adolescence* 60).

Having educated ourselves about the planes of development and about the characteristics and needs of the 12-18 age group, we make some assumptions about the human beings we work with:

- That human beings have amazing potential to construct themselves by interacting with their environment;
- That the environment is self-constructive if the *work is meaningful or purposeful* to the individual's current growth process (which is internally driven);
- That human beings are naturally collaborative and moral and will seek respectful, social organization that benefits the group;
- That meaningful context for adolescents is a *social context* with purposeful work that meets fundamental human needs and contributes to social collaboration and group functioning;
- That a meaningful social context *removes obstacles* to freedom of expression, choice, independent work, and independent thinking;
- That human interdependency must be experienced to be understood and is fundamentally economic—based on being productive, serving others, making contributions to the whole, and interacting in a web of needs for both individuals and the functioning of the group as a "single organism."

The experience of social organization that we aim for in our environments is a universal tendency of human beings. We work in collective structures. We divide labor, collaborate, create systems for efficiency and progress toward goals that benefit our survival as a whole. That collective work creates the necessity of moral behavior, which Maria Montessori saw and articulated as the social relationships among people that make it possible for them to function and progress. Our scaffolding for the third plane must create a structure for the experience of this social organization, and this experience gradually results in awareness of the moral fabric of all human interaction. We are interdependent, says Montessori, truly a "single organism, one nation" (*Education and Peace* 28). We do not have to achieve unification because it already exists by virtue of our collective need for each other. We must only become aware of our interdependency and work to remove the obstacles from it. This is what adolescents need to discover and experience for themselves in our communities.

If we are scaffolding for discovery that leads to self-construction, what constitutes discovery for the adolescent? They must have the opportunity to discover:

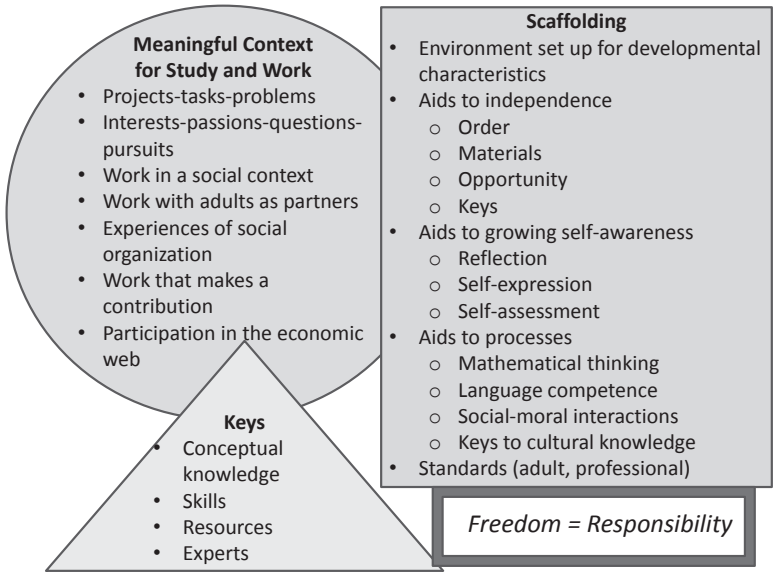
- The way the world and the universe work
- The way people work
- The way humans interact with the world
- The way human beings interact with each other
- The way "I" work as an individual
- What "I" can do
- What "I" can think
- How "I" can contribute
- That "I" have a voice
- That "I" need the work and contributions of other human beings
- That humanity is interdependent
- That human beings are capable of natural moral functioning

This is not something you learn from a book or can be tested by asking questions with multiple choice responses; you learn it by living a full and free human life. The adolescents in our care must be free to pursue self-construction naturally, free to think and question, free to express what they are thinking and experiencing, free to engage and make mistakes, free to seek us out for keys that will help unlock their understanding, and free to solicit our perspective and discover our moral character and their own moral character.

But freedom does not translate into license. Purposeful work in a social context has all kinds of necessary structures and limitations, and these too must be made transparent, questioned, and thoughtfully shaped in a community. Purposeful work in the context of society requires understanding culturally transmitted knowledge; acquiring and practicing social and practical skills; thinking mathematically; communicating through language; and learning to operate in a social system that necessitates shared time, shared space, and shared resources. When a model of social organization is true to the environment, the more real and purposeful the work appears to adolescents. And when this model reveals what human beings can know and do and change, the more likely adolescents are to engage. So we are back to what our job really is: designing a community environment that reaches toward adult-level social purpose in which the individual freely voices her needs and makes individual contributions to the collective but learns to respond to the needs of the group in the process.

This is a challenging task and is one that requires both a global view of how the whole system is working for the community in its complexity as well as the orientation to the detail that maintains order and awareness of individual needs. To complicate things further, the adults in this microcosm of society have the need to contribute and find satisfaction in their contribution as well. Finding a balance between one's individual contribution to the collective work as an adult, while stepping out of the way to allow adolescents to operate independently of adults, calls upon a level of self-awareness and humility that most of us struggle mightily to reach, even on our best days.

The effort is worth it, however, even when we only reach a partial unfolding of community functioning in this complex, dynamic envi-



ronment. We see the outcomes in maturity, responsibility, personal growth, civility, and hope for the future. We become better human beings ourselves in the process. When we witness moments of spontaneous compassion and engagement—older students respectfully and artfully teaching younger students how to tap maple trees, students volunteering to run the kitchen when someone is sick or confidently demonstrating a math solution and hearing other solution strategies with an open mind, voicing a social problem and its possible solution in a community meeting, proposing the design of a new chicken coop that doesn't flood, asking for an additional writing conference to "get the paper right"—we know that it's working. So we keep working at it by observing, responding, and designing. We learn to hold the whole ball of wax—the individual human beings, the great complexity of details, and the grand global vision of collective interdependence—in our hands and hearts. One day at a time.

References

Montessori, Maria. *Education and Peace*. 1949. Chicago: Henry Regnery Co., 1972.

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