



2022

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Recommended Citation

Reymond, Rhonda L.. 2022. "Portals to Learning: Threshold Concepts in Art History Teaching and Learning." *Art History Pedagogy & Practice* 7, (1). <https://academicworks.cuny.edu/ahpp/vol7/iss1/4>

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Cover Page Footnote

This work was first presented at SECAC in 2015. I thank Marjorie Och for convening this panel under the auspices of Art Historians Interested in Pedagogy and Technology (AHPT), and my fellow panelists and participants in the session who encouraged me to continue with this research. Thanks also to Joshua Yavelberg prompting me to obtain IRB certifications for continuing work into the next phase of this research—see final footnote in this paper. Lastly, thank you to the reviewers for their feedback.

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Introduction

In his 2002 critique of the coverage model for *Perspectives on History*, Lendol Calder argued that “historical knowledge covers up the epistemological linchpins of our discipline.”¹ His solution was to “uncover . . . central assumptions, forms of inquiry, and cognitive habits that transform data into knowledge for practitioners of our discipline.”² Art historians also need to engage in research that uncovers and demystifies disciplinary processes and epistemes in order to support the successful transition of learners as they move from lower-order memorization of discrete facts, which may mask art historical thinking and understanding, to the higher-order critical analysis we ask of them.³ Integrating a threshold concepts (TCs) framework into the scholarship of teaching and learning (SoTL) in art history addresses these needs.

The research literature on TCs is vast. As of 2018, a curated website lists over 1,726 references, showing their integration in more than 120 disciplinary and professional contexts.⁴ In art history, there has been little scholarship into TCs beyond one five-page proceedings paper.⁵ Art history instructors can use a TC

¹ Lendol Calder, “Looking for Learning in the History Survey,” *Perspectives on History: The Newsmagazine of the American Historical Society* (March 1, 2002).

<https://www.historians.org/publications-and-directories/perspectives-on-history/march-2002/looking-for-learning-in-the-history-survey>.

² Calder, “Looking for Learning.”

³ Joel Sipress and David J. Voelker, “From Learning History to Doing History: Beyond the Coverage Model”, in *Exploring Signature Pedagogies: Approaches to Teaching Disciplinary Habits of Mind*, eds. Regan A. R. Gurung, Nancy L. Chick, and Aeron Haynie (Sterling, VA: Stylus Publishing, 2008), 19-34. Sam Wineburg, “Probing the Depths of Students’ Historical Knowledge,” *Perspectives on History: The Newsmagazine of the American Historical Society*.

(March 1, 1992). <https://www.historians.org/publications-and-directories/perspectives-on-history/march-1992/probing-the-depths-of-students-historical-knowledge>. See also Calder, “Looking for Learning.”

⁴ The last major update of the website was on 29 March 2020.

<https://www.ee.ucl.ac.uk/~mflanaga/thresholds.html>

⁵ Brad Wuetherick and Elizabeth Loeffler, “Threshold Concepts and Decoding the Humanities: A Case Study of a Threshold Concept in Art History,” in *Threshold Concepts: From Personal Practice to Communities of Practice. Proceedings of the National Academy's Sixth Annual*

framework to design courses (including assignments, feedback, and assessments) that will prepare for learning stages where students experience conceptual or affective difficulty, and turn them into transformative experiences that promote reconstituted and integrated knowledge. Identifying TCs further benefits curriculum design, program assessment, and the profession. This paper defines TCs, proposes five new potential TCs in art history, expands upon one, and demonstrates their benefits for the field.

What are Threshold Concepts?

Threshold concepts came out of a United Kingdom national research project in 2003 that had the goal of enhancing teaching and learning environments in undergraduate education.⁶ The focus of the project was to determine ideas that were central to mastery of a discipline and to incorporate them into curriculum design.⁷ As part of this UK initiative, Jan Meyer and Ray Land conceived of TCs as gateways to learning that open previously inaccessible ways of thinking or allow “seeing things in a new way,” without which a learner cannot progress.⁸ Meyer and Land posited that “As a consequence of comprehending a threshold concept there may thus be a transformed internal view of subject matter, subject

Conference and the Fourth Biennial Threshold Concepts Conference, eds. Catherine O’Mahony, Avril Buchanan, Mary O’Rourke, and Bettie Higgs, [E-publication] (Dublin, Ireland, June 27-29, 2012), 118-122. <https://files.eric.ed.gov/fulltext/ED558533.pdf>. A variation of this paper is Elizabeth Loeffler, and Brad Wuetherick, “Exploring Threshold Concepts: An example of a Threshold Concept in Art History, Bridges,” *Reflecting the Scholarship of Teaching & Learning at the University of Saskatchewan*, Vol. 11, No. 1 (August 2012), 7-9. Librarians using the Association of College and Research Libraries’ (ACRL) information literacy TC framework have produced some research at the intersection of information literacy and art history. Alexander Watkins argues for using an Indigenous lens to examine ways of knowing and information literacy related to Native art. Alexander Watkins, “Teaching Inclusive Authorities: Indigenous Ways of Knowing and the Framework for Information Literacy in Native Art,” in *Disciplinary Applications of Information Literacy Threshold Concepts*, eds. Samantha Godbey, Susan Beth Wainscott, and Xan Goodman, (Association of College and Research Libraries, 2017), 13-24. In another essay, Courtney Baron, Christopher Bishop, Ellen Neufeld, and Jessica Robinson concentrate on helping learners find, evaluate, and cite images. See Courtney Baron, Christopher Bishop, Ellen Neufeld, and Jessica Robinson, “Images Have Value: Changing Student Perceptions of Using Images in Art History,” in *Disciplinary Applications of Information Literacy Threshold Concepts*, eds. Samantha Godbey, Susan Beth Wainscott, and Xan Goodman, (Association of College and Research Libraries, 2017), 135-147.

⁶ Jan Meyer and Ray Land Ray, “Threshold Concepts and Troublesome Knowledge: Linkages to Ways of Thinking and Practising with the Disciplines: Occasional Report 4,” in *Enhancing Teaching-Learning Environments in Undergraduate Courses Project*. (Edinburgh: University of Edinburgh, 2003), 1. <http://www.etl.tla.ed.ac.uk/publications.html>.

⁷ Glynis Cousin, “An Introduction to Threshold Concepts,” *Planet* no. 1 (December 2006), n.p. [1].

⁸ Meyer and Land, “Occasional Report 4,” 1.

landscape, or even world view.”⁹ TCs not only encompass ideas within a discipline that must be mastered through practice and engagement before the learner can advance to more complex concepts, but they also provide theoretical lenses that comprise fundamental disciplinary structures and epistemology. TCs often require an ontological or ideological shift or an affective change in consciousness.¹⁰

TCs are characterized as: (1) transformative because, above all, they represent a significant shift in a learner’s perception and understanding of how communities of practitioners think and the scholarly practices within a discipline; (2) usually irreversible once deeply understood, although prone to periods of liminality and subject to recursive motions until the learner fully grasps the concept; (3) integrative because they expose interconnections that may be hidden to a novice learner; (4) the boundaries of TCs may overlap or blur into other TCs, including those specific to the discipline; and, (5) “troublesome knowledge,” which learners find conceptually difficult, counter-intuitive, or alien.¹¹

In addition to these five characteristics, Meyer and Land later proposed that TCs are also discursive and reconstitutive. They explain that, with a shift in perspective, learners acquire language that specifically and accurately conveys (not merely mimics) their new understanding of discourse and concepts, and their repositioning of self in relation to the discipline. Through the transformational process of navigating TCs, learners go through a liminal state, which requires a reconfiguration of ontological and epistemological schema, resulting in a reconstitution or new perspective.

Liminal Stages

Liminality is an important concept in discussions of TCs. Turning to the ethnographic work of Arnold van Gennep and the later anthropological studies of Victor Turner, Meyer and Land conceived of the threshold as a transitional space and place of transformation between two states of being.¹² Building upon van

⁹ Meyer and Land, “Occasional Report 4,” 1.

¹⁰ Jan H. F. Meyer, Ray Land, and Caroline Baillie, “Editors’ Preface,” in *Threshold Concepts and Transformational Learning*, eds., Jan Meyer, Ray Land, and Caroline Baillie (Rotterdam, Boston, Taipei: Sense Publishers, 2010), xiii. Julie A. Timmermans, “Changing our Minds: The Development of Potential Threshold Concepts,” in *Threshold Concepts and Transformational Learning*, eds., Jan Meyer, Ray Land, and Caroline Baillie (Rotterdam, Boston, Taipei: Sense Publishers, 2010), 5.

¹¹ Cousin, “An Introduction to Threshold Concepts,” 1; Meyer and Land, “Occasional Report 4,” 1.

¹² Arnold van Gennep, *The Rites of Passage* (London: Routledge and Kegan Paul, 1960), Victor W. Turner, *The Ritual Process* (Penguin, 1969); Meyer and Land, “Threshold Concepts and Troublesome Knowledge (2),” 375-377.

Genep's concepts of preliminal rites (separation), liminal rites (transition), and postliminal rites (incorporation), and Turner's codification of them as preliminal, liminal, and postliminal, Meyer and Land posit the same three spaces within TCs (Figure 1).¹³

Figure 1: Reconstitutive Features

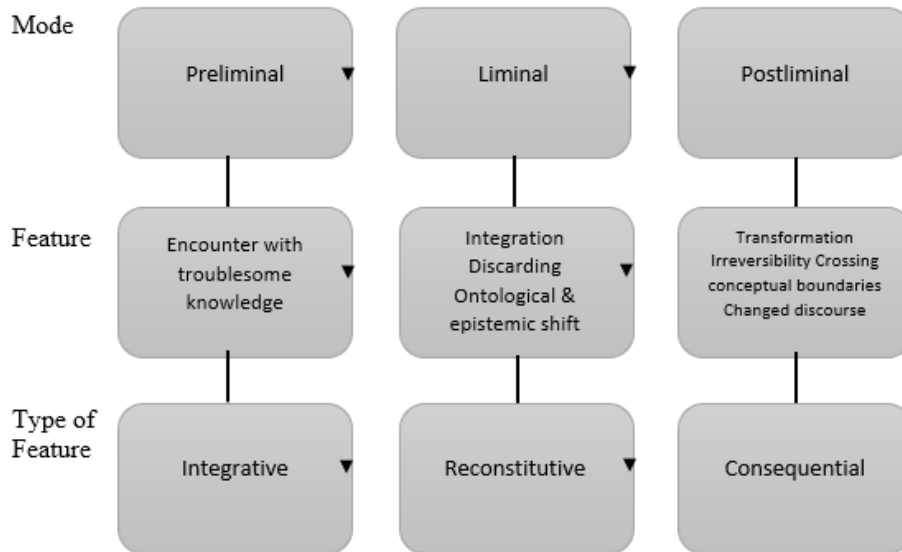


Diagram by author after Ray Land, Erik Meyer, and Caroline Baillie, 2010
<https://www.ee.ucl.ac.uk/~mflanaqa/popupReconstitutive.html>

In the preliminal space the learner confronts “troublesome knowledge,” “stuck places,” or “bottlenecks.”¹⁴ These can be cognitive and/or affective in nature.¹⁵ There may be more than one “stuck place,” difficulty with conceptual

¹³ Arpad Szakolczai, “Liminality and Experience: Structuring transitory situations and transformative events,” *International Political Anthropology* 2, no. 1 (2009), 141 and Turner, *Ritual Process*, 155.

¹⁴ See Meyer and Land, “Occasional Report 4,” 5-9 for more on troublesome knowledge. They identify troublesome knowledge types as, ritual, inert, conceptually difficult, alien, tacit, and troublesome language. See also, David Perkins, “Constructivism and troublesome knowledge,” in *Overcoming barriers to student understanding: Threshold concepts and troublesome knowledge*, eds. Jan Meyer and Ray Land (Abingdon & New York, NY: Routledge, 2006), 33-47. For more on bottlenecks, see Joan Middendorf and David Pace, “Decoding the Disciplines: A Model for Helping Students Learn Disciplinary Ways of Thinking,” *New Directions for Teaching and Learning* no. 98 (Summer 2004), 1.

¹⁵ Timmermans, “Changing our Minds,” 5.

understanding, or affective struggles within the preliminal space.¹⁶ Julie Timmermans points out that the brain likes its current ways of seeing and understanding things. Biological and cognitive research suggests when phenomena disturb balance and individuals work to restore that balance, they make meaning.¹⁷ Consider the learner, who instead of focusing on a work of art, initially drafts a biography of the artist before working through the writing process to develop a contextualized research paper, but then reverts back to the comfort of a biographical approach when given another similar assignment. Letting go of preconceived notions takes energy, is uncomfortable, and is often accompanied by a sense of loss.¹⁸ Emotional repositioning and anxiety about such changes may impinge upon the learner's willingness to enter into the liminal state.¹⁹ As John Dewey noted, "It requires troublesome work to undertake the alteration of old beliefs."²⁰ The learner is not divorced from social context.²¹ Learners may retreat, opt-out, use avoidance strategies, gamely attempt to learn concepts in a fragmented fashion, or need something within the course design that will help them to move into and through the liminal space.²²

Learners entering the liminal space may oscillate between states or take protracted time to move through this non-linear and recursive space.²³ While the liminal state

¹⁶ Meyer and Land, "Threshold Concepts and Troublesome Knowledge (2)," 377.

¹⁷ Timmermans, "Changing our Minds," 10.

¹⁸ Ray Land, Julie Rattray, and Peter Vivian, "Learning in the Liminal Space: a Semiotic Approach to Threshold Concepts, *Higher Education* 67 (2014), 201

¹⁹ Cousin, "An Introduction to Threshold Concepts," n.p. [1]. Peter Felton, "On the Threshold with Students," in *Threshold Concepts in Practice*, eds. Ray Land, Jan H. F. Meyer, Michael T. Flanagan (Rotterdam: Sense Publishers, 2016), 4.

²⁰ *John Dewey: The Later Works, 1925-1953*, Volume 8: 1933, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1986), 136.

²¹ Glynis Cousin, "Threshold concepts, troublesome knowledge and emotional capital: An exploration into learning about others," in *Overcoming Barriers to Student Understanding: threshold concepts and troublesome knowledge*, eds. Jan Meyer and Ray Land (London and New York: Routledge, 2006), 138-139.

²² Ray Land, Glynis Cousin, Jan Meyer and Peter Davies, "Threshold Concepts and Troublesome Knowledge (3): Implications for Course Design and Evaluation," in *Improving Student Learning Diversity and inclusivity, Proceedings of the 12th Improving Student Learning Conference*, ed. Chris Rust (Oxford: Oxford Centre for Staff and Learning Development (OCSLD), 2005), 56. Land et al. cite Savin-Baden's work on disjuncture in problem-based learning as comparative to liminal space within threshold concepts. See Maggi Savin-Baden, "Disjunction as a form of troublesome knowledge in problem-based learning," in *Overcoming Barriers to Student Understanding: Threshold Concepts and Troublesome Knowledge*, ed. Jan H. F. Meyer and Ray Land (London: Routledge, 2006).

²³ Meyer and Land, "Threshold Concepts and Troublesome Knowledge (2)," 380; Land, Rattray, and Vivian, "Learning in the Liminal Space," 201; Noel Entwistle, "Threshold Concepts and Transformative Ways of Thinking Within Research into Higher Education," in *Threshold Concepts*

may be uncomfortable, it is also, as Meyer and Land argue, the space where a change occurs in *how* learners know. This process leads to transformation.²⁴ Ray Land, Julie Rattray, and Peter Vivian have demonstrated that liminality can also be a space of creative potential where learners' ideas are fluid and exploratory.²⁵ Within the liminal space, understanding can be approximate and concepts seem familiar, but they are not yet fully understood so a type of mimicry may occur. As learners internalize concepts, they acquire new written and spoken language that demonstrates a discursive shift in thinking.²⁶ The most learning takes place in the liminal space where the learner discards previous mindsets and integrates new ones, thus reformulating their ontological and epistemological meaning frame.²⁷ As learners enter the postliminal phase, they have crossed conceptual boundaries, changed discourse, and have experienced a transformation that is generally irreversible. They begin to think in disciplinary ways.

Decoding the Disciplines

The STEM fields of science, technology, engineering, and math, and educational theory dominate existing TC literature because of greater consensus and the TCs are more readily identifiable.²⁸ TCs in writing and writing studies have received the most attention in the humanities, while historians have produced the next largest body research on this topic.²⁹ Analysis of the literature suggests that history TCs are more process-based, or relate to how people think or practice within the

with the Disciplines, eds. Ray Land, Jan Meyer, and J. Smith (Rotterdam: Sense Publishers, 2008), 21-35.

²⁴ Meyer and Land, "Threshold Concepts and Troublesome Knowledge (2)," 375-377; Timmermans, "Changing our Minds," 11.

²⁵ Land, Rattray, and Vivian, "Learning in the Liminal Space," 202.

²⁶ Meyer and Land, "Threshold Concepts and Troublesome Knowledge (2)," 380.

²⁷ Leslie Swartzman, "Transcending Disciplinary Boundaries: A Proposed Theoretical Foundation for Threshold Concepts," *Threshold Concepts and Transformational Learning*, eds. Meyer, Land, and Baillie (Rotterdam, Boston, Taipei: Sense Publishers, 2010), 21.

²⁸ Meyer and Land, "Occasional Report 4," 9. Leah Shopkow, "What 'Decoding the Disciplines' Can Offer 'Threshold Concepts,'" in *Threshold Concepts and Transformational Learning*, eds. Jan H. F. Meyer, Ray Lands, and Caroline Baillie (Rotterdam: Sense Publishing, 2010), 317, 321.

Linda Adler-Kassner, John Majewski, and Damian Koshnick, "The Value of Troublesome Knowledge: Transfer and Threshold Concepts in Writing and History," *Composition Forum* 26, (Fall 2012). <https://compositionforum.com/issue/26/troublesome-knowledge-threshold.php> .

²⁹ Gina Wisker, Stuart Cameron, and Maria Antoniou, "Connotation and conjunction: threshold concepts, curriculum development, and the cohesion of English studies," in *Higher Education Academy (HEA) English Subject Centre Project* (University of Brighton, England, 2008.) <https://www.advance-he.ac.uk/knowledge-hub/connotations-and-conjunctions-threshold-concepts-curriculum-development-and-cohesion>

discipline, rather than being specific to content.³⁰ History's TCs often draw on the research of Sam Wineburg, an educational psychologist, best known for his work in history education and his book, *Historical Thinking and Other Unnatural Acts: Charting the Future of Teaching the Past*, and to the research of David Pace, Joan Middendorf, Leah Shopkow, and Arlene Díaz who established the History Learning Project.³¹

Intertwined with discussions of TCs is substantial research on bottlenecks and Decoding the Disciplines (DtD) that informs history pedagogy. Middendorf and Shopkow developed a valuable model called DtD to identify troublesome areas and to cultivate methods for helping learners move through bottlenecks or problem spots.³² Instructors may not even recognize certain ingrained practices, but they are often the same ones that present bottlenecks to new learners. DtD offers a

³⁰ Some of the literature pertaining to Threshold Concepts in history include: a proceedings paper by Paul Sendziuk, "Helping Students to 'Think Historically' by Engaging with Threshold Concepts," in *Threshold Concepts: Proceedings of the National Academy's Sixth Annual Conference and the Fourth Biennial Threshold Concepts Conference, Dublin, June 2012*; and Arlene Díaz and Leah Shopkow, "A Tale of Two Thresholds," *Practice and Evidence of Scholarship of Teaching and Learning in Higher Education*, 12, no. 2 (April 2017), 229-248.

³¹ Sam Wineburg, *Historical Thinking and Other Unnatural Acts: Charting the Future of Teaching the Past* (Philadelphia: Temple University Press, 2001). Sam Wineburg and Roy Rosenzweig developed an open resource for teaching and learning in history, <http://historicalthinkingmatters.org>. For more on the History Learning Project, see Arlene Díaz, Joan Middendorf, and Leah Shopkow, "The History Learning Project: A Department 'Decodes' Its Students," *The Journal of American History* (March 2008), 1211-1224. Information related to Decoding the Disciplines and the History Learning Project can be found at <https://hlp.sitehost.iu.edu/> David Pace, "Decoding the Reading of History: An Example of the Process," *New Directions for Teaching and Learning*, no. 98, (Summer 2004), 13-21; David Pace, "Opening History's Black Boxes: Decoding the Disciplinary Unconscious of Historians" in *The University and its Disciplines: Teaching and Learning Within and Beyond its Boundaries*. New York: Routledge, 2009), 96-104; David Pace, *The Decoding the Disciplines Paradigm: Seven Steps to Increased Student Learning* (Bloomington and Indianapolis: Indiana University Press, 2017.); Leah Shopkow, "What 'Decoding the Disciplines' Can Offer 'Threshold Concepts,'" in *Threshold Concepts and Transformational Learning*, eds. Jan H. F. Meyer, Ray Land, and Caroline Baillie (Rotterdam: Sense Publishing, 2010), 317-332; Leah Shopkow, Arlene Díaz, Joan Middendorf, and David Pace, "The History Learning Project "Decodes" a Discipline: The Union of Teaching and Epistemology," in *Scholarship of Teaching and Learning in and Across the Disciplines*, ed. Kathleen McKinney (Bloomington, IN: Indiana University Press, 2012), 93-113; Leah Shopkow, Arlene Díaz, Joan Middendorf, and David Pace, "From Bottlenecks to Epistemology: Changing the Conversation about the Teaching of History in Colleges and Universities" in *Changing the Conversation About Higher Education*, ed. Richard Thompson, (New York, NY: Rowman & Littlefield, 2013), 29-37; Joan K. Middendorf and Leah Shopkow, *Overcoming Student Learning Bottlenecks: Decode the Critical Thinking of your Discipline*, (Sterling, Virginia: Stylus Publishing, LLC., 2018).

³² Middendorf and Shopkow, *Overcoming Student Learning Bottlenecks*, 182.

methodological tool to deconstruct these hidden or often unacknowledged mental tasks while also diagnosing and meeting the emotional needs of learners.

The cyclical strategy includes seven phases: (1) defining the bottleneck; (2) uncovering the mental task; (3) modeling the tasks; (4) giving practice and feedback; (5) motivating and lessening resistance; (6) assessing student mastery; and (7) sharing that information with other practitioners. (Figure 2)

Figure 2: The Decoding the Disciplines Cycle

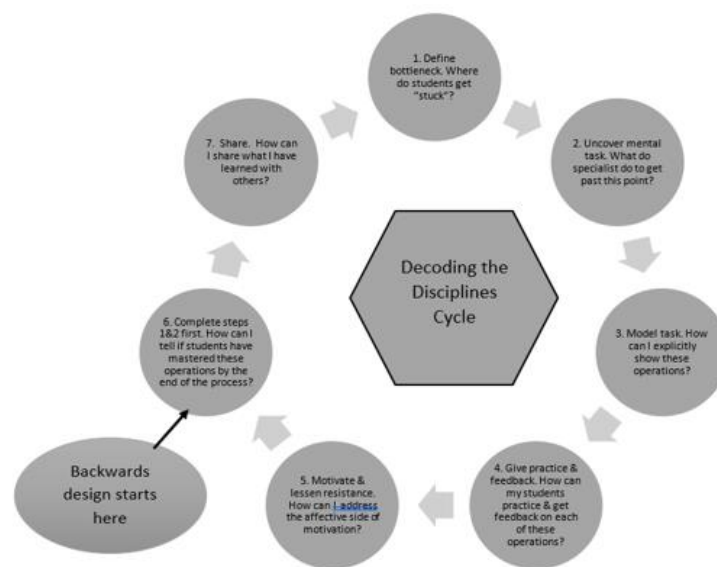


Diagram by author, based on Indiana University Decoding the Discipline Cycle Diagram

The term bottlenecks is a particularly useful analogy as it diffuses the blame-game by uncovering epistemological issues often experienced by learners. Through decoding, or “map[ping] the epistemology of history” Shopkow et al. argue, teachers can help students master disciplinary mental actions that cognitive or emotional bottlenecks might hinder.³³ Teaching students about bottlenecks and the bottleneck cycle makes visible the mental operations of art historians to students and practitioners alike.

³³ Shopkow, et al., *From Bottlenecks to Epistemology*, 39; Middendorf and Shopkow, *Overcoming Student Learning Bottlenecks*, 184.

Differences Between Bottlenecks and Threshold Concepts

Both bottlenecks and TCs refer to points where students get stuck in the learning process; however, according to Middendorf and Shopkow, TCs are more comprehensive and can potentially shift paradigms, whereas bottlenecks make up multiple distinct obstacles within a particular TC.³⁴ Illustrating this tricky interplay, educational development specialist Brad Wuetherick used the DtD interview process with art historian Elizabeth Loeffler. Loeffler identified “understanding how to read art—or how to interpret the language of art” as a bottleneck, which they argue is also a potential TC.³⁵

Pace outlines five major differences between TCs and bottlenecks: (1) All TCs are bottlenecks but not all bottlenecks are TCs—there are more and different types of bottlenecks that may prevent learning, such as inability to process feedback or emotional resistance; (2) Bottlenecks are not necessarily transformative, unlike TCs—there might be several bottlenecks on the path toward a TC; (3) TCs are typically what students *have to know*, the intellectual concepts. Maneuvering through bottlenecks are what students *have to do*, the mental operations they must perform; (4) TCs are related to how a discipline works, the epistemology and procedures as understood by experts in the field. Decoding is problematizing or identifying the individual steps of the mental operations within the field; and (5) Determining bottlenecks is the first step in the decoding process. TCs can benefit from the second step of the decoding cycle, which makes explicit the hidden disciplinary ways of operating that might otherwise go unremarked.³⁶

As useful as the distinction between bottlenecks and TCs is, art historians still have much research to conduct into both concepts.

Potential Threshold Concepts in Art History

³⁴ Middendorf and Shopkow, *Overcoming Student Learning Bottlenecks*, 187.

³⁵ Wuetherick and Loeffler, “Threshold Concepts and Decoding the Humanities: A Case Study of a Threshold Concept in Art History,” 120. Marie Gaspar-Hulvat, “Changing Mental Models and Priorities in the Art History Survey,” Paper presented at the Annual Conference of the College Art Association, Washington, D.C., February 2016. Virginia Spivey, Andy Schulz, and James Hopfensperger’s study, “Measuring Learning in Art History,” is also relevant in identifying assessment components that could intersect with TCs. Virginia Spivey, Andy Schulz, and James Hopfensperger, James, *Measuring College Learning in Art History* (New York: Social Science Research Council, 2018). <http://higher.ed.ssrc.org/wp-content/uploads/2018.02-MCL-in-Art-History-Report-for-CAA.pdf>

³⁶ Pace, *The Decoding the Disciplines Paradigm*, 20-23. See also, Shopkow, “What ‘Decoding the Disciplines’ Can Offer ‘Threshold Concepts,’” 317-332.

To begin establishing a TC framework for art history, it is logical to consider TCs identified by similar fields, such as history and literature studies, and to distinguish those that are particular to art history.³⁷ To make visible cultural and historiographical biases and conduct research at the intersection of other areas, it is also valuable to consider TCs intersecting with postcolonialism, women and gender studies, other studies areas, and those associated with theoretical approaches.³⁸ As a writing-intensive discipline, some of the TCs identified for writing across the disciplines ought to be applicable to art history. The TCs proposed in the next sections should be assessed through DtD or other methods to substantiate their validity.³⁹

TC 1: Relevance: art history is relevant to society.⁴⁰

Sometimes students insist their art history course has nothing to do with their major or “real life” even as debates over images, monuments, and histories rage. Art history provides tools and knowledge to address today’s desire to understand images. Images, visual display, spectacles, and surveillance are all part of an impetus toward what has been described as the pictorial, iconic, or visual turn. Interest in the visual has permeated both popular culture and what W. J. T. Mitchell calls image science, the academic study of images through intellectual disciplines like art history, media studies, cultural studies, and interdisciplinary methods.⁴¹ Popular culture, according to Mitchell, displays a noticeable collective anxiety about images and visual media, while in the academy there are new areas of study engaging with images: visual culture, media studies, audio-visuality, material culture, and natural sciences that are considering the visual in new ways. Both the public and academic populations exhibit a “utopian impulse that yearns

³⁷ Adler-Kassner, Majewski, and Koshnick, “The Value of Troublesome Knowledge,” n.p. <https://compositionforum.com/issue/26/troublesome-knowledge-threshold.php>

³⁸ Cousin, “Threshold Concepts, Troublesome Knowledge and Emotional Capital,” 137-147. Brad Wuetherick, “Forget about process; Let’s focus on content! Threshold Concepts in the Disciplines,” in *Bridges*, Vol. 9, no. 1 (2011), 8.

³⁹ Dermont Shinnars-Kennedy, “How Not to Identify Threshold Concepts,” in *Threshold Concepts in Practice*, eds. Ray Land et al. (Rotterdam: Sense Publishers, 2016), 253–267.

⁴⁰ Sendziuk identifies relevance as a history TC but with a different rationale, which also applies to art history. Sendziuk, “Helping Students to ‘Think Historically,’” n.p. Lendol Calder argues that it is necessary to change attitudes about history. Lendol Calder, “Looking for Learning in the History Survey,” <https://www.historians.org/publications-and-directories/perspectives-on-history/march-2002/looking-for-learning-in-the-history-survey>.

⁴¹ Asbjørn Grønstad and Øyvind Vågnes, “What do Pictures Want?: Interview with W. J. T. Mitchell,” in *Image & Narrative* (November 2006). <http://visual-studies.com/interviews/mitchell.html>

for a critical relation to images, a way of demystifying, opposing, and critiquing their power with a counter-discourse.”⁴²

TC 2: Images and objects have meaning: the language of forms, signs, and symbols can be read and interpreted.

Grasping the concept that images have meaning will help counter the perception that objects are opaque, especially non-objective work and art outside the Western canon. A version of this is the only TC so far proposed in the discipline, and as Wuetherick and Loeffler have noted, the discipline-specific language of art history is linked to describing its signification.⁴³ Two subsidiary TCs may be included within this meta-concept: employing formal or visual analysis, and other means of reading symbols such as semiotics and iconography.⁴⁴

The most discipline-specific skill and process art historians use to interpret art is formal or visual analysis.⁴⁵ It is both a skill and a process. Yet, beginning learners may not realize that visual analysis is more than a verbal or textual recitation of the physical characteristics of an object; it is a thick description using specific terminology with interpretation that constitutes an argument or conveys a point of view about the object. The mental processes necessary to move from description into analysis, and the transformative, irreversible, integrative, possibly bounded, and troublesome nature of this task make this a TC, and a component of the more encompassing meta-concept that images and objects have meaning.

Art historians also consider semiotics, iconography, visual traditions, styles, media, the period eye, and other facets of artifacts and their beholding that address forms, signs, and symbols. Learning what these theories are, and when and how to

⁴² Grønstad and Vågnes, “What do Pictures Want?”

⁴³ Wuetherick and Loeffler, “Threshold Concepts and Decoding the Humanities: A Case Study of a Threshold Concept in Art History,” 120-121.

⁴⁴ Wardle and Adler-Kassner have proposed that “Writing is an Activity and a Subject of Study” is a metaconcept. “When teachers and learners recognize writing as complex enough to require study, and recognize that the study of writing suggests they should approach, learn, and teach writing differently, they are then invited to behave differently.” Elizabeth Wardle and Alder-Kassner, “Metaconcept: Writing is an Activity and a Subject,” in *Naming What We Know: Threshold Concepts of Writing Studies*, eds. Linda Adler-Kassner and Elizabeth Wardle (Utah State University Press, 2015), 15-16.

⁴⁵ Spivey, Schulz, and Hopfensperger, “Measuring College Learning in Art History,” <http://highered.src.org/wp-content/uploads/2018.02-MCL-in-Art-History-Report-for-CAA.pdf> . Josh Yavelberg, “Discovering the Pedagogical Paradigm Inherent in Art History Survey Courses: A Delphi Study,” (Ph.D. dissertation, George Mason University, 2016). <http://arthistorysurvey.com/AHSDelphi/reports.html>

apply them to analyses of objects may present several bottlenecks and constitute another TC under the rubric of images and objects have meaning.

TC 3: Interpretation: images and objects are subject to networks and intersections of inquiry or different lenses and frames.

Objects can be interpreted in various historical or theoretical ways but not in all ways. Interpretation is situated within historical context, a word derived from *contexere*, meaning to “weave together in an active process of connecting things in a pattern.”⁴⁶ This is a creative intellectual activity, not a matching of random facts. To do this while thinking historically, practitioners and students must navigate factors such as causality, contingency, and complexity, evaluate arguments, and identify and accept or reject evidence. This TC is particularly difficult as it is associated with a cluster of bottlenecks that may be practice oriented, represent areas of ambiguity and what can seem like the alien nature of historical reasoning, or even go against personal beliefs, something often disconcerting for learners.⁴⁷ In this TC various theoretical stances can intersect, which elicit their own bottlenecks and potential TCs.

TC 4: Presentism: the backwards reading of the present into the past.⁴⁸

The past is a foreign country of otherness and many learners come to it with an inability to perceive the experiences of these others. Statements indicating this perception may be condescending, express astonishment, or denigrate beliefs, ideas, processes, practices, the state of technology or other historical circumstances. The past often appears to be a continuation of the present backwards into time. The more proximate and familiar the past seems, the more difficult it is to realize the distance and strangeness of it. Thus, there may be a tendency to conflate present and past when the past is more recent and seems nearly like today.

TC 5: Sourcing: the understanding of how knowledge is made.⁴⁹

Inexperienced learners often do not question the reliability or viewpoint of the author. For many students the textbook, a large, encompassing, authoritative tome,

⁴⁶ Wineburg, *Historical Thinking and Other Unnatural Acts*, 21.

⁴⁷ Diaz, et al., “The History Learning Project: A Department ‘Decodes’ Its Students,” 1216.

⁴⁸ Presentism is a common bottleneck identified in history. Middendorf and Shopkow, *Overcoming Student Learning Bottlenecks*, 185.

⁴⁹ Sourcing is another common bottleneck identified in history. Shopkow, et al., “From Bottlenecks to Epistemology in History,” n.p.

is typically the privileged source of information. An author's creation of documents, their intentions, reliability, and particular contexts are often unexamined as the "objective facts" seem to speak for themselves. Information may seem free-floating or already organized in what appear to be "natural" narratives. The internet also has the effect of "flattening" information so that it may all seem equal in terms of authorship, expertise, and judgement.

TC 6: Writing is situated in context: it is modulated by genre, conventions, and standards dependent upon purpose, audience, and contexts.

Through their comparative research on TCs in English composition and history, Adler-Kassner, Majewski, and Koshnick have demonstrated that writing is "situated in and shaped by purpose, audience, context, and genre."⁵⁰ Although some concepts are transferrable across disciplines, they differ in their specifics and conventions according to discipline.⁵¹ Characteristics like argumentation, thesis, and evidence will vary. Writing bottlenecks might include developing research questions where there are difficulties in close reading, analyzing, and questioning of texts and images. There may appear to be no holes in the research; it is complete with no entry point for another viewpoint or voice of a learner. Other bottlenecks might include forming a thesis, developing an argument, and even learning a disciplinary citation style, all things that inculcate within the learner ways of asking and answering questions, and expressing knowledge and competency of research processes within disciplinary discourse.

Benefits of TCs

Formulating art history TCs can yield several benefits. They will improve course and curriculum design, provide a means of assessing learning within programs, and using them can help articulate the importance of the profession. Additionally, when theorizing is derived from lived experience, potential TC limitations may be turned into liberatory practice.

Benefits of TCs for Course Design

Integrating TCs as a framework for teaching can help faculty diagnose and anticipate when students are likely to encounter troublesome knowledge within a

⁵⁰ Adler-Kassner, Majewski, and Koshnick, "The Value of Troublesome Knowledge," n.p. <http://compositionforum.com/issue/26/troublesome-knowledge-threshold.php>

⁵¹ Adler-Kassner, Majewski, and Koshnick, "The Value of Troublesome Knowledge," n.p. <http://compositionforum.com/issue/26/troublesome-knowledge-threshold.php>

course.⁵² Since students must traverse a liminal space to acquire increasing epistemological ways of knowing or making meaning within the discipline, there is typically a period of vacillation as students grapple with disciplinary concepts, for example that a research question drives the search for sources.⁵³ These liminal spaces may be due to procedural, epistemological, or emotional obstacles.⁵⁴ By understanding the differences, teachers may address the three different types of obstacles through the way they design instructions, assignments, readings, activities, and discussions that address student uncertainty or fear of ambiguity.

Construction of meaning is both a cognitive and affective journey. The mind struggles to prevent change as it wants to achieve and maintain consistency or consonance between knowledge, opinions, beliefs, and actions, which makes grasping some concepts problematic.⁵⁵ Because transformational learning takes place in the liminal spaces, it is necessary to support learners through these uncomfortable experiences that promote reconstituted and integrated knowledge.

Benefits of TCs for Curriculum Design

Threshold concepts are also useful when developing or revising curriculum.⁵⁶ By determining desired student learning outcomes and competencies at various academic stages and identifying TCs encountered within them, instructors can design variation and repetition into individual courses and course-levels curriculum-wide.⁵⁷ This holistic approach should help learners attain expected disciplinary proficiencies while allowing for diversity in courses and instructor approaches and assignments. If art history faculty identify deficiencies at a particular level, they may address them with a course or assignment intervention. Heidi Estrem's research on TCs related to writing within vertical program planning (course-levels), helped learners shift their disciplinary identity or enact their discipline through habits of writing.⁵⁸

⁵² Land, et al. "Threshold Concepts and Troublesome Knowledge (3)," 57.

⁵³ Meyer, Land and Baillie "Editors' Preface," xi.

⁵⁴ Timmermans, "Changing our Minds," 7.

⁵⁵ Timmermans, "Changing our Minds," 7. Interview excerpts from Ray Land in James Rhem, "Before and After Students "Get it": Threshold Concepts," *National Teaching and Learning Forum Newsletter* 22, no. 4 (John Wiley & Sons, May 2013), reprinted in *Tomorrow's Professor* newsletter, Center for Teaching and Learning, Stanford University, Nov. 6, 2013.

⁵⁶ Bettie Higgs and James Cronin, "Threshold Concepts: Informing the Curriculum," in *Emerging Issues in Higher Education III: From Capacity Building to Sustainability*, eds. Ciara O'Farrell and Alison Farrell (Athlone: 2013):166-177.

⁵⁷ Land, et al., "Threshold Concepts and Troublesome Knowledge (3)," 56-57.

⁵⁸ Heidi Estrem, "Threshold Concepts and Student Learning Outcomes," in *Naming What We Know: Threshold Concepts of Writing Studies*, eds. Linda Adler-Kassner and Elizabeth Wardle (Utah State University Press, 2015), 97.

While this vertical integration (course levels) is one way of considering disciplinary program objectives, Estrem has also demonstrated that TCs can also be applied horizontally across disciplines. She worked with colleagues teaching communication in different disciplinary courses across campus. Doing so identified what learning looks like and what TCs are in common among disciplines and determined that they could develop a “shared body of knowledge,” values, and a cross-disciplinary vocabulary.⁵⁹ Making visible shared TCs that had been tacit within different fields enabled faculty to develop strategies to help students recursively across the entirety of their coursework.

Benefits of TCs for Assessment

Incorporating TCs can enrich outcomes-based learning.⁶⁰ In her research on TCs and student learning outcomes in writing across the curriculum, Estrem determined that although outcomes-based learning can: be productive, tie assessment to meaningful goals, and provide a datapoint or “snapshot” at a particular moment that demonstrates what a student can do, it also tends to suggest that learning takes place in prescribed ways and at specific times.⁶¹ Estrem states:

Instead of focusing only on what students can do by the end of a course, as a productive outcomes-based discussion would have enabled us to do, a threshold concepts-grounded discussion-and the explicit embrace of struggle, difficulty, and uneven uptake-led these faculty to depictions of what student learning looks like throughout a course.⁶²

Liminal spaces do not necessarily lend themselves to the snapshot provided at the end of a course by learning outcomes assessments. TCs reveal that learning occurs recursively and often in the “between places.”

In working with both learning outcomes and threshold concepts, Middendorf and Shopkow situate DtD as a “frontward design” process rather than the backward course design advocated by L Dee Fink that is often used with outcomes-based

⁵⁹ Estrem, “Threshold Concepts and Student Learning Outcomes,” 91, 96.

⁶⁰ David Pace, “Assessment in History: The Case for Decoding” the Discipline, *Journal of the Scholarship of Teaching and Learning*, 11, No. 3, (August 2011): 107-119.

⁶¹ Estrem, “Threshold Concepts and Student Learning Outcomes,” 91, 93.

⁶² Estrem, “Threshold Concepts and Student Learning Outcomes,” 101.

design.⁶³ When starting with the learning outcomes that define what a student should be able to do by the end of the course, instructors can design assignments to achieve these results. When course design incorporates TCs, learners have the support necessary to work through the cognitive and affective bottlenecks of the TCs encountered in completing assignments.⁶⁴ Using TCs may also yield outcomes directly related to “ways of knowing,” “becoming,” and “being” as learners transition into thinking within a discipline.⁶⁵

Considering TCs programmatically can also factor into assessment outcomes beyond those for a particular course. Although typical student assessments take the form of assignments and final grades, when using TCs individual learner expertise is no longer the only means of presenting achievement of learning outcomes to various institutions.⁶⁶ When students successfully proceed through identified TCs, regardless of the specific individual course content, they will have met disciplinary ways of thinking and practicing. By using TCs in course and curriculum design, faculty can assess where students are throughout their course of study. Faculty will also have data that transcends the course and is program-wide, the level at which most university assessment takes place.

Benefits of TCs for the Profession

The process of developing TCs in art history invites practitioners to examine the discipline and identify what art historical thinking is and is not, articulate scholarly practices, and advocate for the importance of art history to the public-at-large. By making concepts explicit, art historians will have more evidence-based data to advocate for the practical and instrumental advantages offered by the major, the intellectual and cognitive skills it develops, and the affective aspects that derive from humanistic inquiry.

The theorist, W. J. T. Mitchell, asserted in 1994 that there was a burgeoning of image-based communication that marked the end of the centuries-long text-based

⁶³ Middendorf and Shopkow, *Overcoming Student Learning Bottlenecks*, 189. L. Dee Fink, *Creating Significant Learning Experiences: An Integrated Approach to Designing College Courses* (San Francisco, CA: Jossey-Bass, 2003).

⁶⁴ Middendorf and Shopkow, *Overcoming Student Learning Bottleneck*, 189.

⁶⁵ Julie A. Timmermans and Jan H. F. Meyer, “A Framework for Working with University Teachers to Create and Embed ‘Integrated Threshold Concept Knowledge’ (ITCK) in the Practice,” *International Journal for Academic Development*, 24 no 4 (2017): 368.

⁶⁶ Estrem, “Threshold Concepts and Student Learning Outcomes,” 92.

linguist turn in Western society.⁶⁷ Other disciplines have recognized this “pictorial turn” and are addressing it within their fields but often without seeking input from art historians. In 2006, an article on teaching and learning in higher education history courses explained that—“Despite the ubiquity of images in online archives, in classrooms, and in the broader culture, many history students and scholars struggle to devise reading strategies or protocols that are as rigorous and rewarding as those used to interrogate textual sources.”⁶⁸ The article went on to note that “. . . because many historians have been so skeptical of images, we have few conventions for reading images as historical sources. Louis Masur maintains that pedagogy is perhaps the most challenging aspect of the emerging image-based scholarship. . . .”⁶⁹ Unfortunately, none of the authors are art historians and the article ignores the fact that there is an entire discipline dedicated to reading images in a historical manner. Art historians owe it to themselves to articulate what the discipline is and its benefits within the academy and public realms.

Challenging TC Limitations to Create Benefits for Justice, Equity, Diversity, and Inclusionary (JEDI) Practices

TCs are occasionally construed as insular and advancing silos because they are disciplinary based. The TC construct of being bounded may represent the most insular spaces of a discipline.⁷⁰ Because art history is both a discipline and an interdisciplinary practice, the field’s TCs may counteract this tendency to some extent.⁷¹ As Nancy L. Chick has argued, humanities scholars should bring their disciplinary strengths, evidence, and artifacts of learning into SoTL.⁷²

There will be theoretical TCs that intersect with other disciplines as well as course specific or specialist-specific TCs that are not encountered by all students or taught

⁶⁷ Michael Coventry, Peter Felten, David Jaffee, Cecelia O’Leary, and Tracey Weis, with Susannah McGowen, “Ways of Seeing: Evidence and Learning in the History Classroom,” in *The Journal of American History* (March 2006), 1375.

⁶⁸ Coventry, et al., “Ways of Seeing,” 1372.

⁶⁹ Coventry, et al., “Ways of Seeing,” 1375.

⁷⁰ Lane Wilkinson, “Reconsidering Threshold Concepts (LOEX 2015),” *Sense and Reference* (blog), 2 November 2015. <https://senseandreference.wordpress.com/2015/11/02/reconsidering-threshold-concepts-loex-2015/>

⁷¹ Selma Kraft, “Interdisciplinarity and the Canon of Art History,” *Issues in Integrative Studies* no. 7 (1989.): 57-71. Mickey Abel, “Relevant Interdisciplinarity: Taking the Art History Classroom to the Field,” *Peregrinations: Journal of Medieval Art and Architecture* 5 no. 3 (2016.): 1-11.

⁷² Nancy L. Chick, “Difference, Privilege, Power in SOTL,” in *The Scholarship of Teaching and Learning in and Across the Disciplines* eds. Kathleen McKinney and Mary Taylor Huber (Indiana University Press, 2013), 20.

by all scholar-teachers, such as writing, science-based inquiry into materials, women and gender studies, post-colonialism, and others.⁷³

Another potential shortcoming to using TCs is that since these practices are within disciplinary epistemology, achieving transformed learning may represent a privileged or dominant viewpoint.⁷⁴ Interrogating the field's systems, assumptions, historiography, power structures, and structures of knowledge to identify TCs may be one way of challenging inequities, marginalization, and erasures in the discipline.

Of the plethora of articles written about TCs, there is a relative lack of criticism except from economics and from higher education research librarians.⁷⁵ When the Association of College and Research Librarians (ACRL) instituted a TC framework to replace a long-lived and simple to understand standards frame, it engendered positive, negative, and thoughtful critical responses.⁷⁶

One of the most insightful critiques, offering a potential corrective model for art history to consider, comes from Ian Beilin, a historian and practitioner of critical information literacy and critical librarianship. As such, he has a “commitment to

⁷³ The History Learning Project has suggested there are two types of threshold concepts in the discipline, foundational and theoretical. Díaz, et al., “The History Learning Project: A Department ‘Decodes’ Its Students,” 1211-1224. Meyer, “Variation in Student Learning as a Threshold Concept,” *Journal of Faculty Development* 26 no. 3 (September 2012.): 8-13.

⁷⁴ Meyer and Land, “Occasional Report 4,” (2003), 1. Lane Wilkinson, “The Problem with Threshold Concepts,” *Sense and Reference* (blog), 19 June 2014. <https://senseandreference.wordpress.com/2014/06/19/the-problem-with-threshold-concepts/>. Ian Beilin, “Beyond the Threshold: Conformity, Resistance, and the ACRL Information Literacy Framework for Higher Education,” *In the Library with the Lead Pipe* (blog), 25 February 2015. <http://www.inthelibrarywiththeleadpipe.org/2015/beyond-the-threshold-conformity-resistance-and-the-acrl-information-literacy-framework-for-higher-education/>

⁷⁵ Eleven articles critical of threshold concepts are currently cataloged at <https://www.ee.ucl.ac.uk/~mflanaga/thresholdsC.html#crit>. There are also several blog articles noted in Ian Beilin, “Beyond the Threshold: Conformity, Resistance.” <http://www.inthelibrarywiththeleadpipe.org/2015/beyond-the-threshold-conformity-resistance-and-the-acrl-information-literacy-framework-for-higher-education/>.

⁷⁶ *Teaching Information Literacy Threshold Concepts: Lesson Plans for Librarians*, eds. Patricia Bravender, Hazel McClure, and Gayle Schaub (Chicago, Illinois: Association of College and Research Libraries, A division of the American Library Association, 2015), *Disciplinary Applications of Information Literacy Threshold Concepts*, eds. Samantha Godbey, Susan Beth Wainscott, and Xan Goodman (Chicago, Illinois: Association of College and Research Libraries, a division of the American Library Association, 2017). Amy R. Hofer, Silvia Lin Hanick, and Lori Townsend, *Transforming Information Literacy Instruction: Threshold Concepts in Theory and Practice* (Santa Barbara, CA: Libraries Unlimited, 2019), Lori Townsend, Lu, Silvia, Hofer, Amy R., and Brunetti, Corey, “What’s the Matter with Threshold Concepts,” *ARCLog* (blog), 30 January 2015. <https://acrlog.org/2015/01/30/whats-the-matter-with-threshold-concepts/>

both principles of social justice and a systematic critique of the power relations within which our field operates.”⁷⁷ Beilin insists that any TCs that are established must be questioned as part of the “structure of knowledge that a critical pedagogy encourages.”⁷⁸ TCs should not only expose tacit knowledge within the discipline but also suppressed and marginalized voices. Because TCs are derived from lived experience, they may function as liberatory, if we ask it of them.⁷⁹ Art historians must also be alert to the potential of decontextualizing knowledge creation and resisting it. Beilin concludes that the TC-based Framework may provide a critical means for engaging in this progressive project.⁸⁰

Making the methods of a discipline visible encourages practitioners and learners to see underlying epistemes, concepts, assumptions, and structures embedded within a system. Becoming aware that one’s own disciplinary work is not natural nor neutral but is a constructed system creates a metacognitive way of engaging with making meaning that may enable learners to look for and identify other systems or parts of systems of knowledge creation.

Conclusion: Beginning TC SoTL-AH Research

There is a learning curve for practitioners when adopting and integrating any new framework. In working with and interviewing faculty across disciplines to identify TCs common to writing, Adler-Kassner and Majewski first had to introduce and explore TCs with faculty. Through this work they discerned that engaging with TCs is a threshold concept for faculty.⁸¹ They note that Meyer delineated faculty engagement with TCs as occurring in four stages: “(1) describing threshold concepts of their discipline; (2) using threshold concepts as an “interpretive framework” through which to consider teaching; (3) reflexively incorporating them into teaching practices; and (4) conducting research on teaching and understanding teaching as research.”⁸² One of the most powerful observations coming out of their

⁷⁷ Ian Beilin, “Beyond the Threshold: Conformity, Resistance.”

<http://www.inthelibrarywiththeleadpipe.org/2015/beyond-the-threshold-conformity-resistance-and-the-aclr-information-literacy-framework-for-higher-education/>.

⁷⁸ Ian Beilin, “Beyond the Threshold: Conformity, Resistance.”

⁷⁹ bell hooks, “Theory as Liberatory Practice,” in *Teaching to Transgress: Education as the Practice of Freedom* (New York: Routledge, 1994), 61.

⁸⁰ Ian Beilin, “Beyond the Threshold: Conformity, Resistance.”

⁸¹ Linda Adler-Kassner and John Majewski, “Extending the Invitation: Threshold Concepts, Professional Development, and Outreach,” in *Naming What we Know*, eds. Linda Adler-Kassner and Elizabeth Wardle (University Press of Colorado, 2015), 187.

⁸² Adler-Kassner and Majewski, “Extending the Invitation,” 186 citing the work of Jan H. F. Meyer, “Variation in Student Learning as a Threshold Concept,” *Journal of Faculty Development* 26, no. 3 (2012): 9–13.

TC research was the transition in faculty members from “thinking about a way of thinking to thinking about teaching a way of thinking.”⁸³ Threshold concepts can enable faculty to see the content of *teaching* and in doing so, help them foster student learning of disciplinary mental actions.

Research into TCs should include students as partners not only to identify them but also for just outcomes.⁸⁴ While the History Learning Project group and practitioners in other fields have used the DtD approach to interview faculty and students, identify “bottlenecks,” and have based TCs on it, most have employed this with a limited number of colleagues or students.⁸⁵ They have conducted interviews with students and have assessed them through quantitative and qualitative means.⁸⁶ While faculty often see learning in the form of outcomes, students experience TCs. Their descriptions and identification of when they encounter bottlenecks or move into liminal conceptual spaces are important to diagnosing them and to designing pedagogy, which addresses these issues and provides structural support for areas of most concern to students.

Lee Schulman, a leader in SoTL, has asserted that knowledge in pedagogy must be “*public*, susceptible to *critical review and evaluation*, and accessible for *exchange and use* by other members of one’s scholarly community.”⁸⁷ Art historians engaged in SoTL should implement survey instruments or design other metrics that include both faculty and students to determine the validity of the TCs proposed above. After establishing a TC framework, it will be possible to design, assess and implement practices that address troublesome concept areas using assignments,

⁸³ Adler-Kassner and Majewski, “Extending the Invitation,” 192.

⁸⁴ Ursula Lucas and Rosina Mladenovic, “The Potential of Threshold Concepts: An Emerging Framework for Educational Research and Practice,” *London Review of Education* 5, no. 3 (November 2007): 240-244. Emily Clark, “Ten Proposals for a More Ethical Art History: an undergraduate perspective” *The Material Collective* (blog), 19 June 2019. <http://thematerialcollective.org/ten-proposals-for-a-more-ethical-art-history/>

⁸⁵ The Association of College and Research Librarians (ACRL) is a notable and recent exception that has systematically worked across the field and with various populations to derive threshold concepts.

⁸⁶ Díaz and Shopkow, “A Tale of Two Thresholds,” 229-248.

⁸⁷ Lee Schulman, “Course Anatomy: The Dissection and Analysis of Knowledge Through Teaching” in *The Course Portfolio: How Faculty Can Examine Their Teaching to Advance Practice and Improve Student Learning*, ed. Pat Hutchings (Washington, D.C., 1988), 5. Salvatore and Donahue state, “We need a culture of teaching as intellectual work—work that can be theorized, work whose parameters and conditions of possibility can be analyzed and evaluated in accordance with formally articulated standards, work that can be interpreted within a framework of disciplinary knowledge and modes of inquiry.” Marolina Rizzi Salvatori and Patricia Donahue, “English Studies in the Scholarship of Teaching,” *Disciplinary Styles in the Scholarship of Teaching and Learning: Exploring Common Ground*, eds. Mary Taylor Huber and Sherwyn P. Morreale (Washington, D.C., 2002), 84.

readings, approaches, discussions, and ideas shared by our community. This will empower art history faculty to guide students into the liminal spaces and across those thresholds, so students learn the mental operations and practices that comprise art historical thinking.

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