Bioarchaeology and forensic anthropology as unique expertises

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The practice of Bioarchaeology or Forensic Anthropology require unique contributory expertise

SPECIALIST EXPERTISES	UBIQUITOUS TACIT KNOWLEDGE			SPECIALIST TACIT KNOWLEDGE	
	Knowledge that is easily accesible (i.e., ubiquitous)			Exclusive knowledge that must be acquired via interactions and enculturation with practicing professionals	
	Beer Mat Knowledge	Popular Understanding	Primary Source Knowledge	Interactional Expertise	Contributory Expertise
	Knowledge of very superficial facts about a topic such that you might find on a beer mat/coaster	Knowledge based on popular non- fiction books and the general media	Knowledge based on engaging with the primary literature.	This represents having enough expertise about a discipline to interact with its contributory experts performing their work, but lacking the technical knowledge to perform it yourself.	This represents having enough expertise to contribute to a discipline through its technical and scholarly practice
enculturation. Lacking encul expertise leads to overco	The only way to develop contributory expertise is through culturation. Lacking enculturation at the level of contributory expertise leads to overconfidence and poor performance. Collins and Evans (2007:69) Note that literature still only provides "a shallon or misleading appreciation of science in deeply disputed area (Collins and Evans 2007:22)			"Scientists themselves tend to have contributory expertise in their narrow specialism and interactional expertise in cognate specialisms." (Collins 2004:141)	

Conclusions

Within this model, both bioarchaeology and forensic anthropology share many lower-level expertises, representing what Collins and Evans refer to as primary source knowledge. However, as specialization increases, there is decreasing overlap in expertise. These distinctions in knowledge area and expertise are important, as without the appropriate the appropriate amount of expertise, practitioners perform tasks inappropriately and/or incorrectly.

Model of expertise and explanations from:

Collins H. (2004b). Interactional expertise as a third kind of knowledge. Phenomenology and the Cognitive Sciences 3(2),125-143.

Collins H. (2013). Three dimensions of expertise. *Phenomenology and the Cognitive Sciences* 12(2),253-273.

Collins H. (2018). Studies of expertise and experience. *Topoi* 37(1),67-77.

Collins H., and Evans R. (2007). Rethinking expertise University of Chicago Press. Chicago, IL: University of Chicago Press.

Collins H., and Evans R. (2015). Expertise revisited, part I—Interactional expertise. Studies in History and Philosophy of Science Part A 54,113-123.

Collins H., Evans R., and Weinel M. (2016). Expertise revisited, part II: Contributory expertise. *Studies in History and Philosophy of Science Part A* 56,103-110.

Collins H. M., and Evans R. (2002). The third wave of science studies: Studies of expertise and experience. Social studies of science 32(2),235-296.

Example of levels of expertise between Bioarchaeology and Forensic Anthropology UBIQUITOUS TACIT KNOWLEDGE SPECIALIST TACIT KNOWLEDGE POPULAR PRIMARY SOURCE INTERACTIONAL CONTRIBUTORY BEER MAT UNDERSTANDING KNOWLEDGE EXPERTISE Estimation of paleodemographic parameters of a bioarchaeological Bioarchaeology population Discussion of You can estimate You can learn how old Familiarity with approaches for someone's age someone was from Todd 1926 Forensic from thier estimating age their skeleton Anthropology hip bones Estimation of age-at-death for a modern forensic case