

Supplementary Table S1. Detailed results from analysis of yarns from ancient Peruvian textiles from the Michael C. Carlos Museum collections.

	Museum accession number	Object description and samples	DART NEG	DART POS	Fiber composition (OM, SEM or FTIR)	PS-MS	HPLC	Interpretation
Nazca	2002.1.100	<i>Snake band</i>						
		Purple	indigotin/indirubin; purpurin, munjistin, xanthopurpurin/alizarin, pseudopurpurin, rubiadin	not run	protein	nothing detected	indigotin, indirubin, purpurin	Indigo + Relbunium
		Pink	xanthopurpurin/alizarin, purpurin, rubiadin, munjistin	not run	protein	nothing detected	purpurin	Relbunium
		Green	indigotin/indirubin; luteolin, luteolin methyl ether, hydroxybenzoic acids	not run	protein	nothing detected	indigotin, indirubin, luteolin-like	Indigo + flavonoid yellow
	2002.1.3	<i>Hummingbird border</i>						
		Purple	indigotin/indirubin; purpurin, xanthopurpurin/alizarin, rubiadin	not run	protein	not run	purpurin, indigotin, indirubin	Indigo + Relbunium
		Green	indigotin/indirubin; luteolin, luteolin methyl ether, hydroxybenzoic acids	not run	protein	not run	indigotin (trace)	Indigo + flavonoid yellow
		Black	indigotin/indirubin	not run	protein	not run	indigotin, indirubin (trace)	Indigo
	2002.40.4	<i>People beans</i>						
		Green	indigotin/indirubin; hydroxybenzoic acids	indigotin/indirubin	protein	not run	indigotin, indirubin	Indigo + oxidized flavonol
		Orange	purpurin, rubiadin; hydroxybenzoic acids	indigotin/indirubin (contamination); purpurin; no yellows detected	protein	nothing detected	purpurin, indigotin	Relbunium + oxidized flavonol

Wari discontinuous warp and weft	2002.1.148	Tie-dye textile fragment						
		Red	rubiadin, purpurin, xanthopurpurin/alizarin, lucidin	purpurin, xanthopurpurin/alizarin	protein	lucidin primeveroside	purpurin, rubiadin	Relbunium
		Purple	indigotin/indirubin; purpurin, rubiadin	indigotin/indirubin; purpurin, xanthopurpurin/alizarin	protein	not run	indigotin, indirubin, purpurin	Indigo + Relbunium
		Purple2	indigotin/indirubin	indigotin/indirubin	protein	not run	indigotin, indirubin, purpurin	Indigo + Relbunium
		Red/purple (two-tone)	not run	not run	protein	not run	indigotin, indirubin, purpurin, rubiadin	Indigo + Relbunium
		Green	indigotin/indirubin; hydroxybenzoic acids	indigotin/indirubin; no yellow detected	protein	not run	indigotin	Indigo + oxidized flavonol
		Green2	indigotin/indirubin; hydroxybenzoic acids	indigotin/indirubin	protein	not run	indigotin, indirubin	Indigo + oxidized flavonol?
		Yellow	No yellow detected	No yellow detected	protein	not run	nothing detected	Unknown
		Yellow2	traces of hydroxybenzoic acids	No yellow detected	protein	not run	trace of apigenin, luteolin-like, purpurin (contam?), quercetin	oxidized flavonol?
	White	traces of hydroxybenzoic acids	No yellow detected	protein	not run	nothing detected	undyed	
	2002.1.1	Tie-dye textile fragment						
		Red	purpurin, rubiadin, xanthopurpurin/alizarin, munjistin, pseudopurpurin	purpurin, xanthopurpurin/alizarin	protein	nothing detected	purpurin, xanthopurpurin/alizarin, rubiadin	Relbunium
		Blue/purple	indigotin/indirubin; rubiadin, purpurin	indigotin/indirubin	protein	primeverosides of xanthopurpurin/alizarin, rubiadin and lucidin	indigotin, indirubin, purpurin	Indigo + Relbunium
		White	traces of hydroxybenzoic acids		protein	not run	not run	undyed
		Green	indigotin/indirubin; hydroxybenzoic acids	indigotin/indirubin; No yellow detected	protein	not run	indigotin, indirubin (trace)	Indigo + unknown
		Yellow/green	hydroxybenzoic acids	indigotin/indirubin; No yellow detected	protein	not run	indigotin, genistein?	Indigo + oxidized flavonol
		Yellow	hydroxybenzoic acids	No yellow detected	protein	not run	nothing detected	oxidized flavonol?
		Yellow2	hydroxybenzoic acids	No yellow detected	protein	not run	luteolin-like, luteolin, isorhamnetin, purpurin (contam?)	oxidized flavonol

Wari tapestry weave	2002.1.16	Wari tunic fragment						
		Salmon	Nothing detected	Nothing detected	protein	carminic acid	carminic acid	Cochineal
		Pink/red	Nothing detected	Nothing detected	protein	carminic acid	carminic acid	Cochineal
		Gold	hydroxybenzoic acids	No yellow detected	protein	trace of apigenin?	nothing identifiable	oxidized flavonol
		Orange	purpurin	purpurin	protein	purpurin, rubiadin	purpurin, xanthopurpurin/alizarin, rubiadin	Relbunium
		Green	indigotin/indirubin; hydroxybenzoic acids	indigotin/indirubin	protein	not run	indigotin, indirubin	Indigo + oxidized flavonol
	2002.1.83	Brown	gallic acid	hydrojuglone?	protein	not run	nothing detected	tannin or Juglans?
		Fragment						
		Red	lucidin? (trace)	Nothing detected	protein	carminic acid	carminic acid	Cochineal
	2003.40.5	Green	indigotin/indirubin; hydroxybenzoic acids	indigotin/indirubin	protein	not run	indigotin, indirubin (tr), no yellows detected	Indigo + oxidized flavonol?
		Wari band, frayed						
		Red	Nothing detected	Not run	protein	carminic acid	carminic acid	Cochineal
		Purple	rubiadin (trace)?	indigotin/indirubin	protein	carminic acid	carminic acid, indigotin, indirubin	Indigo + cochineal
		Turquoise	indigotin/indirubin; hydroxybenzoic acids	indigotin/indirubin	protein	not run	indigotin, indirubin	Indigo + oxidized flavonol
		Greenish yellow	indigotin/indirubin; hydroxybenzoic acids	indigotin/indirubin; kaempferol?	protein	not run	IND, quercetin, kaempferol	Indigo + oxidized flavonol
	Chancay weaver's basket	2002.1.126 A-U	Yellow-brown	hydroxybenzoic acids	possibly luteolin	protein	not run	luteolin methyl ether, luteolin-like, quercetin
Yarn								
Dark green			indigotin/indirubin; hydroxybenzoic acids	indigotin/indirubin	protein	not run	indigotin, indirubin, purpurin, luteolin-like	Indigo + oxidized flavonol
Light green			indigotin/indirubin; hydroxybenzoic acids	indigotin/indirubin	protein	not run	indigotin, indirubin, purpurin, luteolin-like	Indigo + oxidized flavonol
Large blue			indigotin/indirubin; hydroxybenzoic acids, MeOQU, DeOLT	indigotin/indirubin	cellulose	not run	indigotin, indirubin, purpurin, luteolin-like	Indigo+ oxidized flavonol?
Small blue			indigotin/indirubin; hydroxybenzoic acids, MeOQU, DeOLT	indigotin/indirubin	protein	not run	indigotin, indirubin, purpurin, luteolin-like	Indigo + oxidized flavonol
Brown/red			purpurin, munjistin, pseudopurpurin, rubiadin, xanthopurpurin/alizarin, hydroxybenzoic acids	purpurin	cellulose	methoxyquercetin	purpurin	Relbunium + oxidized flavonol
Yellow-brown			Nothing detected	indigotin/indirubin (contam?)	protein	not run	nothing detected	undyed?
White			Nothing detected	not run	cellulose	not run	nothing detected	undyed?

Lambayeque tassled textile	2004.64.1	<i>Lambayeque textile</i>						
		red tassels	traces of lucidin and munjistin?	not run	protein	carminic acid, dcll	carminic acid, dcl, dcll	Cochineal
		pink body squares	Nothing detected	not run	protein	carminic acid	carminic acid	Cochineal
		orange from figure's hands	hydroxybenzoic acids, quercetin	not run	protein	nothing detected	carminic acid, quercetin	Cochineal + flavonol
		dark blue-green	not run	indigotin/indirubin	protein	caffeic acid	indigotin, indirubin, ellagic acid	Indigo + tannin?
		light blue	indigotin/indirubin	indigotin/indirubin	protein	caffeic acid	indigotin, indirubin	Indigo
		Light green	indigotin/indirubin; hydroxybenzoic acids	indigotin/indirubin	protein	caffeic acid, gallic acid, methyl gallate, hydroxybenzoic acid	indigotin, gallic acid	Indigo + tannin or oxidized flavonol
		cream warp	Nothing detected	not run	cellulose (FTIR/SEM)	nothing detected	nothing detected	undyed
		beige from figure's face	hydroxybenzoic acids	not run	protein	ursolic acid	trace of carminic acid (contam?)	undyed?
		white hand sewing thread	hydroxybenzoic acids	not run	protein	not run	trace of carminic acid (contam?)	undyed? Oxidized flavonol?
		brown warp	caffeic acid, hydroxybenzoic acids	not run	cellulose (FTIR/SEM)	deoxyluteolin	laccic acid?, ellagic acid	tannin + oxidized flavonol
		golden brown	hydroxybenzoic acids	not run	cellulose (FTIR/SEM)	ursolic acid	laccic acid?, ellagic acid	tannin + oxidized flavonol