Supplemental Material for Creating Texture Exemplars from Unconstrained Images (Yale University Department of Computer Science Technical Report 1483)

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This document contains additional examples that did not fit into the main report due to size constraints. It is divided into two sections.

The first section is the result of our experiments comparing different feature spaces. Each page has an original image and a tile selected by our "naive" user. Additionally it includes a tile set for each feature space along with the number of graphics students that approved each tile set.

Note that we ran the test twice for each feature space. The tile output of the program should be nearly identical for each run, with the exception of slight variations caused by non-determinism. The differences in the user responses can be attributed to variability of what a single reviewer considered "the same texture" as the test progressed.

The second section includes a number of additional examples. For each example we included the original image, a screenshot of our GUI, the tiles obtained from our system and the resulting texture synthesis.

1 Experiment Results



Image by Flicker user Maggiejumps, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/B7LUq

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
		W 1		1. 3 May 3	رف المدينة المحدد المحدد المحدد
	A STATE OF THE STA			and the second	基基基基
			20 To 10 To	نجا جنو احتاد	The wife have the
1		A STATE OF THE PARTY OF THE PAR		The state of the state of	
	7 of 8 participants approved of all the tiles	7 of 8 participants approved of all the tiles	no participants approved of all tiles	5 of 8 participants approved of all the tiles	7 of 8 participants approved of all the tiles
				10 July 10 10 10 10 10 10 10 10 10 10 10 10 10	رف الأرد المحرم المحرم
	AND THE REAL PROPERTY.			and the second	
	A STATE OF THE STA		20 To 10 To	-	The wife have the
2		A STATE OF THE STA		The state of the state of	
	6 of 8 participants approved of all the tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles	6 of 8 participants approved of all the tiles	6 of 8 participants approved of all the tiles



Magna Brew Ecolog 53 & Scotter 53 & Scotter

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
1					
	8 of 8 participants approved of all the tiles	7 of 8 participants approved of all the tiles	2 of 8 participants approved of all the tiles	1 of 8 participants approved of all the tiles	no participants approved of all tiles
2					
	8 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles	3 of 8 participants approved of all the tiles	1 of 8 participants approved of all the tiles	no participants approved of all tiles



Image by Flicker user jcookfisher, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/94xrS8

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		5
1					
	7 of 8 participants approved of all the tiles	6 of 8 participants approved of all the tiles	7 of 8 participants approved of all the tiles	4 of 8 participants approved of all the tiles	no participants approved of all tiles
			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		5
2					
	7 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles	5 of 8 participants approved of all the tiles	1 of 8 participants approved of all the tiles



Image by Flicker user kcdsTM, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/4MKRG5

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
		タックシャン			
		医医疗			
1					
	8 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles	7 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles
		タックを			
		E 12 15 B			
2					
	8 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles	7 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles



Image by Flicker user Nina Matthews, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/9uCMNF

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
1					
	4 of 8 participants	5 of 8 participants	no participants approved	5 of 8 participants	no participants approved
	approved of all the tiles	approved of all the tiles	of all tiles	approved of all the tiles	of all tiles
2					
	4 of 8 participants approved of all the tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles	2 of 8 participants approved of all the tiles	no participants approved of all tiles



Image by Flicker user ralph and jenny, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/a3ZDcn

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
	There's the last the	the state of the s			(1) 八维士
					100 100 111 11
	Mariana Parana				
1	Company Compan				
	5 of 8 participants approved of all the tiles	4 of 8 participants approved of all the tiles	no participants approved of all tiles	1 of 8 participants approved of all the tiles	no participants approved of all tiles
	There's the second of the seco				11 1 16 1
		And the second s			
			海域支气		
2	Control of the contro	All the second s			
	5 of 8 participants approved of all the tiles	4 of 8 participants approved of all the tiles	no participants approved of all tiles	2 of 8 participants approved of all the tiles	no participants approved of all tiles



Image by Flicker user psmithy, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/4Sj7fk

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
					San San
1					
	4 of 8 participants approved of all the tiles	5 of 8 participants approved of all the tiles	no participants approved of all tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles
					See See
2					
	5 of 8 participants approved of all the tiles	5 of 8 participants approved of all the tiles	no participants approved of all tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles



Image by Flicker user motiqua, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/7TRX79

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
		49			
	1964 - Yang	200 (1996) 2010 (1996)			
1					
	no participants approved of all tiles	5 of 8 participants approved of all the tiles	no participants approved of all tiles	no participants approved of all tiles	no participants approved of all tiles
		100 - 100 -			
2					
	no participants approved of all tiles	5 of 8 participants approved of all the tiles	no participants approved of all tiles	no participants approved of all tiles	no participants approved of all tiles



Image by Flicker user gray_um, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/5DM9Vh

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
					The same of the sa
		EX XX			
1					300
	2 of 8 participants approved of all the tiles	4 of 8 participants approved of all the tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles	1 of 8 participants approved of all the tiles
					The same of the sa
		EX X			
2					30
	2 of 8 participants approved of all the tiles	5 of 8 participants approved of all the tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles	no participants approved of all tiles



Image by Flicker user Drew Avery, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/64JoJN

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature
					Space
			艾娅		
					4
1					
	7 of 8 participants	8 of 8 participants	no participants approved	2 of 8 participants	no participants approved
	approved of all the tiles	approved of all the tiles	of all tiles	approved of all the tiles	of all tiles
		Y Y			
					T
		14			
2					
	7 of 8 participants	8 of 8 participants	no participants approved	1 of 8 participants	no participants approved
	approved of all the tiles	approved of all the tiles	of all tiles	approved of all the tiles	of all tiles



Image by Flicker user Muffet, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/5XyRoU

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
1					
	7 of 8 participants approved of all the tiles	7 of 8 participants approved of all the tiles	no participants approved of all tiles	2 of 8 participants approved of all the tiles	no participants approved of all tiles
2			深深态态		
	8 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles	no participants approved of all tiles	1 of 8 participants approved of all the tiles	no participants approved of all tiles



Image by Flicker user Todd Ryburn, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/6wRbfj

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
					A 1 100
	Marie Committee of the	and some last the			
1					
	6 of 8 participants approved of all the tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles	no participants approved of all tiles	no participants approved of all tiles
	and the same of				经 不够及
	Marie Carlos				
2					A TO THE STATE OF
	6 of 8 participants approved of all the tiles	5 of 8 participants approved of all the tiles	no participants approved of all tiles	no participants approved of all tiles	no participants approved of all tiles



Image by Flicker user snigl3t, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/3zcwdy

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
		一直 电路 电			
1					
	7 of 8 participants approved of all the tiles	7 of 8 participants approved of all the tiles	no participants approved of all tiles	no participants approved of all tiles	no participants approved of all tiles
2					
	7 of 8 participants approved of all the tiles	7 of 8 participants approved of all the tiles	1 of 8 participants approved of all the tiles	no participants approved of all tiles	no participants approved of all tiles



Image by Flicker user Benimoto, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/2SPWCk

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
		65 W. S. S.			
1					
	6 of 8 participants approved of all the tiles	7 of 8 participants approved of all the tiles	no participants approved of all tiles	7 of 8 participants approved of all the tiles	no participants approved of all tiles
		65- 165- 555 has			
2					
	7 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles	no participants approved of all tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles



Image by Flicker user mikebaird, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/8nFgCE

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
1					
	7 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles	4 of 8 participants approved of all the tiles	1 of 8 participants approved of all the tiles	no participants approved of all tiles
		多类类型			
2					
	8 of 8 participants approved of all the tiles	8 of 8 participants approved of all the tiles	4 of 8 participants approved of all the tiles	1 of 8 participants approved of all the tiles	no participants approved of all tiles



Image by Flicker user Hryck, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/5RTemC

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
				图 医 图 经	400
			当。当時官		
1					1 3 3
	3 of 8 participants approved of all the tiles	1 of 8 participants approved of all the tiles	3 of 8 participants approved of all the tiles	no participants approved of all tiles	no participants approved of all tiles
				影響機能	
2					1 3 2
	2 of 8 participants approved of all the tiles	2 of 8 participants approved of all the tiles	3 of 8 participants approved of all the tiles	no participants approved of all tiles	no participants approved of all tiles



Image by Flicker user Ian Sane, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/dyHZ2Y

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
1				经是是 公	
	2 of 8 participants approved of all the tiles	4 of 8 participants approved of all the tiles	no participants approved of all tiles	no participants approved of all tiles	no participants approved of all tiles
2				经是是	
	1 of 8 participants approved of all the tiles	2 of 8 participants approved of all the tiles	no participants approved of all tiles	1 of 8 participants approved of all the tiles	no participants approved of all tiles



Image by Flicker user Micky**, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/mwsax

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
			原放总具		
		检约数数	集 影 震 医		
1		全學 表表	发表温度	图 图 图 基	
	6 of 8 participants approved of all the tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles
			赞 献 夏 集		
	罗勒杜金	他 為图图	集数是贵		新教
2		童祭 夏炎	经数温 薄		
	7 of 8 participants approved of all the tiles	7 of 8 participants approved of all the tiles	no participants approved of all tiles	7 of 8 participants approved of all the tiles	no participants approved of all tiles



Image by Flicker user Tim Green aka atoach, under the Creative Common Attribution 2.0 Generic License http://flic.kr/p/5jY8d4

run	2-moments	5-moments	HOG Texture Space	Trivial Feature Space	Autocorrelation Feature Space
					Space
				国际 為	
1					
	5 of 8 participants approved of all the tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles
2					
	5 of 8 participants approved of all the tiles	6 of 8 participants approved of all the tiles	no participants approved of all tiles	4 of 8 participants approved of all the tiles	no participants approved of all tiles

2 Additional Examples











