

*Summer and Winter Study*

of

*Des Moines Weavers Guild*

Marian Powell

## SUMMER and WINTER

Introduction -----		1
Unit Structure -----		2
Units and Blocks -----		3
Tie-Up -----		4
Weft Variations -----		5
Classical Summer and Winter -----		6
Six Shot Rotation -----	a1 b2 a1, b1 a2 b1 -----	7
One and One -----	a1 b2 (a1) -----	8
One and One--Two tabby -----	ab1 ab2 -----	9
No tabby weave -----	1 3 1 2 -----	10
Four and Four, alt. tabby -----	a 1212, b 1212 -----	11
Four and Four, double tabby ----	ba 1212 -----	12
Single tie, Crackle or Corded----	a 1, b 1 -----	13
Two and Two, alt. tabby -----	a 12, b 12 -----	14
Two and Two, double tabby ----	ab 12 -----	15
Opposites, Tidball -----	1 Dark, 4 Light -----	16
Opposites, Frey -----	<u>13</u> <u>24</u> <u>24</u> <u>13</u> -----	17
Huck Treading -----	<u>12121</u> <u>bab</u> -----	18

Sequence weaves, Introduction -----		19
Alternate Sheds -----	141 323 -----	20
Lace Texture -----	b-1-b-1-b-a -----	21
Point Twill Texture -----	1-2-3-4-3-2 (etc) -----	22
Twill Textures -----	1-2-3-4 (etc) -----	23
Curved Outline -----	bab 8 -----	24
Honeycomb variation -----	a7a7a7a (etc) -----	25
Three Dimensional -----	axby -----	26
Eyelashes -----	ab 0 -----	27
Novelty treadling -----	<u>aba</u> <u>1</u> -----	28
Polychrome--Introduction -----		29
Polychrome- B. Frey -----		30
Polychrome-General -----		31
Polychromc- Tidball -----		32
Part Polly -----		33
Spider Webs -----		34
Warp suggestions -----		35
Happy Weaving! -----		36

### **SUMMER AND WINTER MATERIAL --Introduction**

**For the sake of uniformity all groups should use same Tie and Basic Unit. Profiles should be varied, as should warp material and sett.**

**If certain groups are particularly interested in one phase of Summer and Winter, then they should make this their particular study. If individuals or members of another group wish to participate in study of a certain group they are most welcome.**

**Four Harness Summer and Winter has endless possibilities, and once the simple and basic mechanics are grasped, multi-harness Summer and Winter opens a multitude of new possibilities.**

**It is suggested that samples be minimum of 7" square when finished.**

### SUMMER and WINTER--Unit Structure

Each unit of Summer and Winter consists of 4 warp ends .

1st end on Harness #1	This is the most commonly used unit .
2nd end on Block Harness	Margaret Davison and the Finnish books
3rd end on Harness #2	place the 1st and 3rd ends on Harness
4th end on Block Harness	4 and Harness 3 .

Harness #1 (x tie down) may be considered as one warp tabby  
 Harness #2 (y tie down) may be considered as other warp tabby  
 Harness #3 Block A  
 Harness #4 Block B  
 Harness #5 Block C, etc .

We may weave:

All blocks together--Background  
 No blocks--Texture  
 Any block independently  
 Any combination of blocks

When harness controlling particular block is DOWN-- that block will weave .

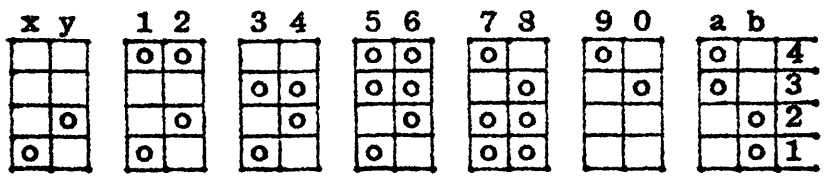


**SUMMER AND WINTER--Tie-Up**

The various treadlings are based on Tie-Up as given here.

It is not necessary (or advisable) to use complete tie, and for most of the treadlings 1-2, 3-4, a-b are sufficient.

**RISING SHED LOOM**



**On Rising Shed Looms, Harnesses indicated by "o" are UP.  
 On Sinking Shed Looms, Harnesses indicated by "o" are DOWN**

**SUMMER and WINTER --Weft variations**

There are many means weftwise of changing appearance of piece of weaving.

The following are a few suggestions:

Alternate color rotation. An example of this would be block A in 1st color, block B in 2nd color, Block A in 3rd color and block B in 1st color, etc.

Alternate color A and B blocks, in other words A block in 1st color and B block in 2nd.

Color change in same block. Example: a fine shiny material with 1st and last pattern shot of block, color darker or brighter than pattern filler. (Could use fine rayon or metallic for this).

Tabby color change in alternate blocks.

Different "a" and "b" color tabby.

Same filler for tabby and pattern.



SUMMER and WINTER --Classical Method. Shuttlecraft Bulletin Aug.-Sept. 1957

BLOCK A	BLOCK B	
a tabby, 1 pattern	a tabby, 3 pattern	Method A. Produces "O" shaped units sometimes known as Needlepoint. The reverse side will be "X" or Cross-Stitch.
b tabby, 2 pattern	b tabby, 4 pattern	
a tabby, 2 pattern	a tabby, 4 pattern	
b tabby, 1 pattern	b tabby, 3 pattern	
b tabby, 1 pattern	b tabby, 3 pattern	Method B. Upper side again Needlepoint with under side Cross-Stitch.
a tabby, 2 pattern	a tabby, 4 pattern	
b tabby, 2 pattern	b tabby, 4 pattern	
a tabby, 1 pattern	a tabby, 3 pattern	
a tabby, 2 pattern	a tabby, 4 pattern	Method C. Needlepoint on upper side, Cross-Stitch on under.
b tabby, 1 pattern	b tabby, 3 pattern	
a tabby, 1 pattern	a tabby, 3 pattern	
b tabby, 2 pattern	b tabby, 4 pattern	
b tabby, 2 pattern	b tabby, 4 pattern	Method D. Again Needlepoint on upper side, Cross-Stitch on under side.
a tabby, 1 pattern	a tabby, 3 pattern	
b tabby, 1 pattern	b tabby, 3 pattern	
a tabby, 2 pattern	b tabby, 4 pattern	
		Use only one method on single piece.
		Always square at 45 degree angle.
		Either Needlepoint or Cross-Stitch lovely.

**SUMMER AND WINTER --Six shot rotation.**

**BLOCK A**    a 1, b 2, a 1, b 1, a 2, b 1    Repeat to square  
**BLOCK B**    a 3, b 4, a 3, b 3, a 4, b 3    Repeat to square

As this is a six rather than four shot rotation, either the sett will have to be more widely spaced or filler will have to be finer if one is to square at 50/50.

Do not know source of this treading, but sample is charming.

**SUMMER AND WINTER --One and One**

<b>BLOCK A</b>	<b>BLOCK B</b>
<b>a tabby, 1 Pattern</b>	<b>b tabby, 3 Pattern</b>
<b>b tabby, 2 Pattern</b>	<b>a tabby, 4 Pattern</b>
<b>repeat, ending</b>	<b>repeat, ending</b>
<b>a tabby, 1 Pattern</b>	<b>b tabby, 3 Pattern</b>

**Blocks should of course square at 45 degree angle .**

**This is easier to do and faster than the Classical forms, but again it is absolutely necessary to be consistant in treading method for a uniform background texture .**

**SUMMER AND WINTER****One and One--two tabbies****BLOCK A**

a b 1, a b 2

or

b a 1, b a 2

or

a b 2, a b 1

or

b a 2, b a 1

**BLOCK B**

a b 3, a b 4

or

b a 3, b a 4

or

a b 4, a b 3

or

b a 4, b a 3

**Unit treadling repeated to desired size  
for blocks****Any sequence that is used should be con-  
tinued throughout the piece.**

**SUMMER AND WINTER****BLOCK A**  
1-3-1-2**BLOCK B**  
4-2-4-3

This treading has a number of interesting aspects, and might be worth a little extra experimentation.

Beside trying it in the usual manner, a color rotation could be used.

Another approach might be to have shots on Treadle #1 in Block A, and on Treadle #4 in Block B of one filler or color of filler, with other shots in these blocks of different color or filler.

**SUMMER AND WINTER****Four and four with alternate tabby****BLOCK A****a-1-2-1-2****b-1-2-1-2****or****a-2-1-2-1****b-2-1-2-1****BLOCK B****a-3-4-3-4****b-3-4-3-4****or****a-4-3-4-3****b-4-3-4-3****Weave to square blocks . Be sure to finish each sequence .**

## SUMMER AND WINTER

FOUR AND FOUR with double tabby.

SPECIAL REFERENCE. Master Weaver, reprint edition #2-- page 24

BLOCK A	BLOCK B
2-1-2-1 b-a	4-3-4-3 b-a

It is suggested by Mr. Zelinski that the tabby yarn be finer than pattern-- and of a different color. Also that this be treated as one shuttle weave, with warp and weft of a decidedly different color. He also suggests using a tie which here is

BLOCK A	BLOCK B
6-5-6-5 b-a	4-3-4-3 b-a
or	or
y-x-y-x b-a	4-3-4-3 b-a

each sequence to  
square.

In these two treadlings Block A in the first case (6-5-6-5 b-a) would weave both Block A and B, and Block treadling (4-3-4-3 b-a) would weave Block B.

In second example Block A would be no Blocks, and Block B would be again Block B.

SUMMER AND WINTER --Single Tie Down

CRACKLE or CORDED Method. A popular treadling.

Only one of the two pattern harnesses is used in each block of this four thread unit. The same pattern harness should be used in each block throughout.

Any of the four sequences of pattern-tabby variations on page 6 may be used.

BLOCK A	BLOCK B
a tabby, 1 pattern	a tabby, 3 pattern
b tabby, 1 pattern	b tabby, 3 pattern

This treadling is modern in feeling. It is good with a textured pattern filler, close to warp in color, with tabby same material as the warp.



## SUMMER AND WINTER

## Two and Two---Alternate Tabby

Special reference---Master Weaver #2 Reprint Edition, page 24.

The four ways that this treading may be done are not given in MASTER WEAVER, but they are as follows, and all give a somewhat different appearance.

BLOCK A	BLOCK B	Repeat sequence as many times as desired for size of block.
a 1-2 b 1-2	a 3-4 b 3-4	
or	or	
b 1-2 a 1-2	b 3-4 a 3-4	As in other treadlings it is essential to maintain same sequence throughout the entire piece.
or	or	
a 2-1 b 2-1	a 4-3 b 4-3	
or	or	
b 2-1 a 2-1	b 4-3 a 4-3	Mr. Zelinski in his treadlings has given pattern first, followed by tabby. For the sake of uniformity in our working material this is changed so that tabby is followed by pattern.

## SUMMER AND WINTER

Two and Two--double tabby

## BLOCK A

a-b 1-2

or

b-a 1-2

or

a-b 2-1

or

b-a 2-1

## BLOCK B

c-b 3-4

or

b-a 3-4

or

a-b 4-3

or

b-a 4-3

As in any other Summer and Winter  
treading where a choice of sequences  
is given, only ONE sequence should be  
used in a single piece.

### SUMMER AND WINTER --Opposites

Special reference--Shuttlecraft Bulletin--Feb. 1958. Article by Mrs. Tidball

In this article Mrs. Tidball gives two methods of weaving Summer & Winter on opposites. The first might be considered Contemporary and the second Traditional.

For weaving on opposites warp should be more widely spaced than for regular Summer and Winter, and could be of heavier material-- depending on final use for which the fabric is intended.

The opposites method gives a weft-rep surface, and the warp should be completely covered.

BLOCK A	1 DARK	4 light	repeat as desired		
BLOCK B	3 DARK	2 light	repeat as desired		
			or		
BLOCK A	1 DARK	3 light	2 DARK	4 light	repeat as desired
BLOCK B	1 light	3 DARK	2 light	4 DARK	repeat as desired

**SUMMER nad WINTER -- Opposites**

**Special Reference--Designing and Drafting for Handweavers--B. Frey on Page 149**

**The treadling given by Miss Frey follow Classical Method of weaving Summer and Winter.**

**For sake of uniformity in this study, her directions have been converted to our tie and threading.**

**Eight shots are necessary for single unit of each block.**

**BLOCK A 1 DARK 3 light 2 DARK 4 light 2 DARK 4 light 1 DARK 3 light**  
**BLOCK B 3 DARK 1 light 4 DARK 2 light 4 DARK 2 light 3 DARK 1 light**

## SUMMER and WINTER -- Huck Treadling

Marian Powell

This is a Contemporary treadling, and much depends upon filler used. With a stiff filler such as mercerized cotton the appearance is very different than with worsted.

A contrasting color from warp may be used for pattern shots, heavier than the warp with same color as warp material for tabby. This is also handsome with both tabby and pattern contrasting with warp.

The five shot rotation may be lengthened to seven, nine or number desired. This is a good treadling for borders, in which case number of repeats could be graduated.

BLOCK A	BLOCK B	
1-2-1-2-1	3-4-3-4-3	This is interesting with blocks threaded in different colors. Block A in one color and Block B in another color, or Block A in 1st color, Block B in 2nd color, Block A in 3rd color, Block B in 1st color, etc.
or		
1-2-1-2-1 a or b	3-4-3-4-3 a or b	
or		
1-2-1-2-1 aba or bab	3-4-3-4-3 aba or bab	

SUMMER AND WINTER --Sequence Weaves

SPECIAL REFERENCE -- November 1957 Jan. & Feb. 1958 issues of Shuttlecraft.

This series of weaving methods of Summer and Winter by Mrs. Tidball offers much, and each article merits study and experimentation by the serious weaver.

The sequence weaves are a lot of fun to do, and each treadling as well as each new thread combination brings a new surprise.

They are excellent for color and texture experimentation, as well as for development of color-proportion relationships.

Try combinations of different types, weights, colors, etc. for filler. In some cases all same material or different weights of same material prove interesting. Metallics, chenilles and novelties work well.

See pages 20-21 -22-23-24 and 25.

SUMMER and WINTER --Alternate sheds .

Marian Powell

This, as far as I know is an unpublished treadling. There is a relationship to opposites, but with no block development probably should be classed as sequence or rotation weave.

This is most interesting with color interchange. The UNIT TREADLING is

1-4-1 3-2-3

Color interchange gives the following

<u>1-4-1</u>	<u>3-2-3</u>	warp stripe on Block A, broken weft stripe both blocks
<u>1-4-1</u>	<u>3-2-3</u>	warp stripe on Block B, broken weft stripe both blocks
<u>1-4-1</u>	<u>3-2-3</u>	staggered weft stripe

<u>1-4-1</u>	<u>3-2-3</u>	suggestion of pattern
1-4-1	<u>3-2-3</u>	

SUMMER and WINTER --Lace Texture

Special reference--Shuttlecraft of February 1958. Mrs. Tidball

BLOCK A            b-1-b-1-b-a

BLOCK B            b-3-b-3-b-a

Repeat units as many times as desired.

A single color weft may be used, or on sixth shot a different color or filler may be introduced.

A light beat is necessary for open texture.



## SUMMER and WINTER

Special reference--Feb. 1958 Shuttlecraft. Mrs. Tidball

NO TABBY TEXTURE            1-2-3-4-3-2 and repeat

CORDUROY or WEFT RIB        1-2-3-4-3-2-1 aba and repeat

SINGLE TABBY TEXTURE        1-2-3-4-3-2-1 a and repeat

\*\*\*\*\*

Five or six point twill textures including tabby are also interesting. They may be

1-2-3-4-a-4-3-2 and repeat, or            1-2-3-4-3-2-1-a and repeat, or

1-2-3-4-b-4-3-2 and repeat, or            1-2-3-4-3-2-1-b and repeat, or

1-2-3-4-a-b-a-4-3-2 and repeat, or        1-2-3-4-3-2-1 aba and repeat, or

1-2-3-4-b-a-b-4-3-2 and repeat, or        1-2-3-4-3-2-1 bab and repeat,

Good with color variations, and with novelties. Marian Powell

**SUMMER and WINTER. Twill textures. These are only a start, and possibilities are unlimited.**

A B C D may represent color, weight, etc. of filler. 1-2-3-4-a-b are treadles.

1-A 2-B 3-A 4-B	1-A 2-B 3-C 4-A	1-A 2-B 3-C 4-D
	1-B 2-C 3-A 4-B	
1-A 2-A 3-B 4-B	1-C 2-A 3-B 4-C	1-A 2-A 3-B 4-B
		1-C 2-C 3-D 4-D
1-A 2-A 3-A 4-B	1-A 2-A 3-B 4-B	
1-B 2-B 3-A 4-A	1-C 2-C 3-A 4-A	1-A 2-A 3-A 4-B
1-A 2-B 3-B 4-B	1 B 2-B 3-C 4-C	1-B 2-B 3-C 4-C
		1-C 2-D 3-D 4-D
1-A 2-B 3-A 4-B	1-A 2-A 3-A 4-A	
for one block	1-B 2-B 3-B 4-B	1-A 2-A 3-A 4-A
1-B 2-A 3-B 4-A	1-C 2-C 3-C 4-C	1-B 2-B 3-B 4-B
other block		1-C 2-C 3-C 4-C
	1-A 2-A 3-B 4-B a-C b-C	1-D 2-D 3-D 4-D
1-A 2-B 3-A 4-B a-A b-B	1-B 2-B 3-A 4-A a-C b-C	
1-A 2-A 3-A 4-A a-B b-B	1-A 2-A 3-B 4-B a-C b-C	

SUMMER and WINTER --Curved Outline

Special Reference--Shuttlecraft Bulletin--Feb. 1958. Mrs. Tidball

BLOCK A    b-a-b-8  
BLOCK B    b-a-b-7    All filler on "b" of fine material-- other heavy

The fabric has long floats on underside, making it impractical in some instances.  
A splendid upholstery material.

For Multi-Harness Tie-Ups see issue of Shuttlecraft mentioned above.

SUMMER and WINTER --Honeycomb Variations --Based on Spot Bronson

Special Reference --Shuttlecraft Bulletin of November 1957. Mrs. Tidball

In treadlings given as illustrations in Shuttlecraft, there is considerable inter-change in color and weight of filler. With our Tie-Up, unit designations will be

BLOCK A	a and 7	Number of shots to block usually uneven and dep-
BLOCK B	8 and a	endent on profile. Sometimes separated by tabby.

This variation is very interesting. There is too much material to cover here and the Shuttlecraft Bulletin mentioned above should be used as reference.

SUMMER and WINTER --3D or Three Dimensional

SOURCE --Master Weaver--May 1956-- Pages 8 to 11

In this treadling binder (tabby) is fine, and the pattern filler is varied. As there is no block pattern any Summer and Winter threading is satisfactory. The Multi-Harness Tie-Up would be same as four harness Tie-Up except that any harness threaded above four would also be connected with the "a" tabby.

This gives a beautiful contemporary fabric. Two, three or more pattern fillers may be used. They may vary in size, type and color. Treadling good for development of color and/or texture relationships. Composite fillers (several different) together may well be used.

By coordinating the Tie Up given in Master Weaver with ours, we have

a tabby, x pattern, b tabby, y pattern

OR

b-a tabby, x pattern, b-a tabby, y pattern.

Mr. Zelinski suggests that in second treadling weft should be really SOFT and HEAVY.

SUMMER and WINTER --Eyelashes--Fringe

Marian Powell

This treadling is strictly from "Funville".

It is better to have at least one of the fillers, could be either tabby or pattern-- in rough material. If desired a weak solution of Elmers Glue and water may be applied at cut edges.

Tie-Up is unbalanced, but opposite the other unbalanced tie we have used. The PATTERN treadles are not connected to Harness 1 or 2, giving warp overshoot floats which may be trimmed in a variety of ways-- or left as they are for decorative effect. Also, overshoot may be entirely cut out, leaving pattern areas.

BLOCK A	a-b tabby	O pattern	For fringe the O and 9 pattern shots should be of relatively heavy material. Care must be taken in pattern filler, particularly for fringe, that material will not ravel for ugly edge when cut.
BLOCK B	a-b tabby	9 pattern	

Blocks may be separated by tabby areas.



## SUMMER and WINTER -- Polychrome

### SOURCE MATERIAL

Designing and Drafting for Handweavers	B. Frey
Shuttlecraft Bulletins	
Nov. & Dec. 1950	Tidball
Jan. & Feb. 1951	Tidball
October 1957	Tidball
Tie Up (S. C. Handweavers) Nov. 1958	

Polychrome Summer and Winter is a very striking and dramatic weave. It is NOT fast, and should have careful planning.

There are several methods of doing Polychrome, and any of the recent source material mentioned above will be of much help.

The issue of Tie-Up is splendid, particularly from a designing standpoint and carries excellent photographs.



SUMMER and WINTER-- Polychrome

Source--DESIGNING AND DRAFTING for HANDWEAVERS B. Frey

Treadlings and Tie-Up used by Miss Frey converted to our designations.

D indicates DARK and L indicates LIGHT, Block Designation determined by DARK.

Sett for Polychrome is sometimes more open than for regular Summer and Winter.

SINGLE METHOD           BLOCK A   a 1D 3L b 2D 4L repeat blocks to square.  
                          BLOCK B   a 3D 1L b 4D 2L

COLONIAL METHOD       BLOCK A.  a 1D 3L b 2D 4L a 2D 4L b 1D 3L  
                          BLOCK B   a 3D 1L b 4D 2L a 4D 2L b 3D 1L

Either of these may be done by adaptations or sequences of the Classical form, such as "b" tabby preceding first pattern shot, or as treadles 2 and 4 preceding 1 & 3.

SUMMER and WINTER --Polychrome--continued

In the four harness, or two block treadling given by Miss Frey all areas are in color, and in these examples neither all pattern ( x and y treadle) or texture, (no pattern block-- treadles 5 and 6) are included.

It is not necessary to use as heavy a pattern filler in Polychrome as in regular Summer and Winter, and as it is a modern treatment, is entirely proper to use modern color combinations and fibers.

Other Polychrome treadlings may be based on different S. & W. treadlings, as

One and One--two tabby  
 BLOCK A      BLOCK B  
 ab 1D 3L      ab 3D 1L  
 ab 2D 4L      ab 4D 2L  
                 repeat as  
                 desired

One and One--Single tab.  
 BLOCK A      BLOCK B  
 a 1D 3L      b 3D 1L  
 b 2D 4L      a 4D 2L  
                 repeat ending  
 a 1D 3L      b 3D 1L

### SUMMER and WINTER -- Polychrome

Shuttlecraft Bulletin of October 1957. Article by Mrs. Tidball.

There is such a wealth of material in this article that it can not afford to be missed by anyone contemplating either study of Summer and Winter Polychrome, or planning piece of weaving in that technique.

Article suggests methods for selection of drafts, shows how a single threading may be changed by change of tie-up, and has a number of excellent illustrations.

Mrs. Tidball uses "polychrome" in the literal sense, and so most of her drafts are for multi-harness threadings, but there is good material for the four harness weaver.

Also in article is material on Profiles and types of drafts, which is applicable to other techniques as well as to Summer and Winter.

## SUMMER and WINTER --Part Polly

Marian Powell

A modern technique in which part of the block, or/and part of the blocks are done in several or no pattern fillers. (Usually filler different color, but may be different fiber or both different color and fiber).

This is faster than regular S. & W. Polychrome, and is usually most effective with a simple draft. When interchange is made within block there is extra interest.

Treadle #1 (or #2) weaves Block A, and Treadle #3 ( or #4) weaves Block B.

Sample treadling is given below. Weave from left to right.

A is 1st pattern filler, B 2nd, C 3rd, -- no pattern filler, "a" and "b" tabby.

a 1A 3B	b 1A 3B	x2
a 1C 3B	b 1C 3B	x1
a 1C --	b 1C --	x2
a 1B --	b 1B --	x1
a 1B 3A	b 1B 3A	x2
a -- 3A	b -- 3A	x1
a -- 3C	b -- 3C	x2
a 1A 3C	b 1A 3C	x1

SUMMER and WINTER Spider Webs of Brooks Boquet. 3 Variations. M. Powell

Weave tabby heading with "b" tabby ending at right

Treadles 6-5 (number times desired) plus 6

"a" tabby raised for pick up across warp

Treadles 5-6 (number times desired) plus 6

"b" tabby, then a-b as many times as desired

\* \* \* \* \*

Tabby heading with "b" tabby ending at right.

"b" tabby in second color

Treadles 6-5 (number of times desired) plus 6

"a" tabby raised for pick up (second color) across warp

Treadles 6-5 (number times desired) plus 6

"b" tabby in second color

a-b tabby as many times as desired

\* \* \* \* \*

a-b tabby with "b" tabby ending at right

Treadles 6-5 (second color) number times desired

"a" tabby for pick up

Treadles 6-5 (second color) number times desired

b-a tabby

SUMMER and WINTER --Warp suggestions .

Marian Powell

For Classical or Traditional Summer and Winter, a plain warp should naturally be used -- but for Contemporary treatment we have much choice in material used, sett and color arrangement .

It is usually better not to try to have TOO MUCH in the same piece of weaving, so if warp is complex treadling should be simple . The following are a few suggestions for Contemporary warp arrangements .

1. Rather than using one color, use several shades of that color .
2. Alternate color of blocks, block and color change to coincide .
3. Warp arrangement such as for plaid, planned independently of profile .
4. One end 1st color and next end 2nd color, or two ends 1st color and two ends 2nd color, or four ends 1st color and four ends 2nd color .
5. One end 1st color and two ends 2nd color, or two ends 1st color and three ends 2nd color, or two ends 1st color-- two ends 2nd color--2 ends 3rd color .
6. Spaced or grouped warp, either of all same material or different materials .

The preceding pages are but a few of the many approaches to Summer and Winter.

There is much excellent source material on this technique available in both weaving books and magazines.

One phase of Summer and Winter which we have not even touched here is that of rug weaving, and attention should be called to pages 172-180 in "Rug Weaving" by Gallinger and Del Deo.

Another approach to Summer and Winter rugs may be found in the November 1958 issue of Shuttlecraft, articles by Harriet Tidball and Crescent Deru.

Those interested in the dramatic and unusual should find the book "Kutokaa Kuviollisia Kankaita" by Ester Perheentuyra a pure joy, however, of the Summer and Winter drafts included only one is for four harness.

Happy Weaving!