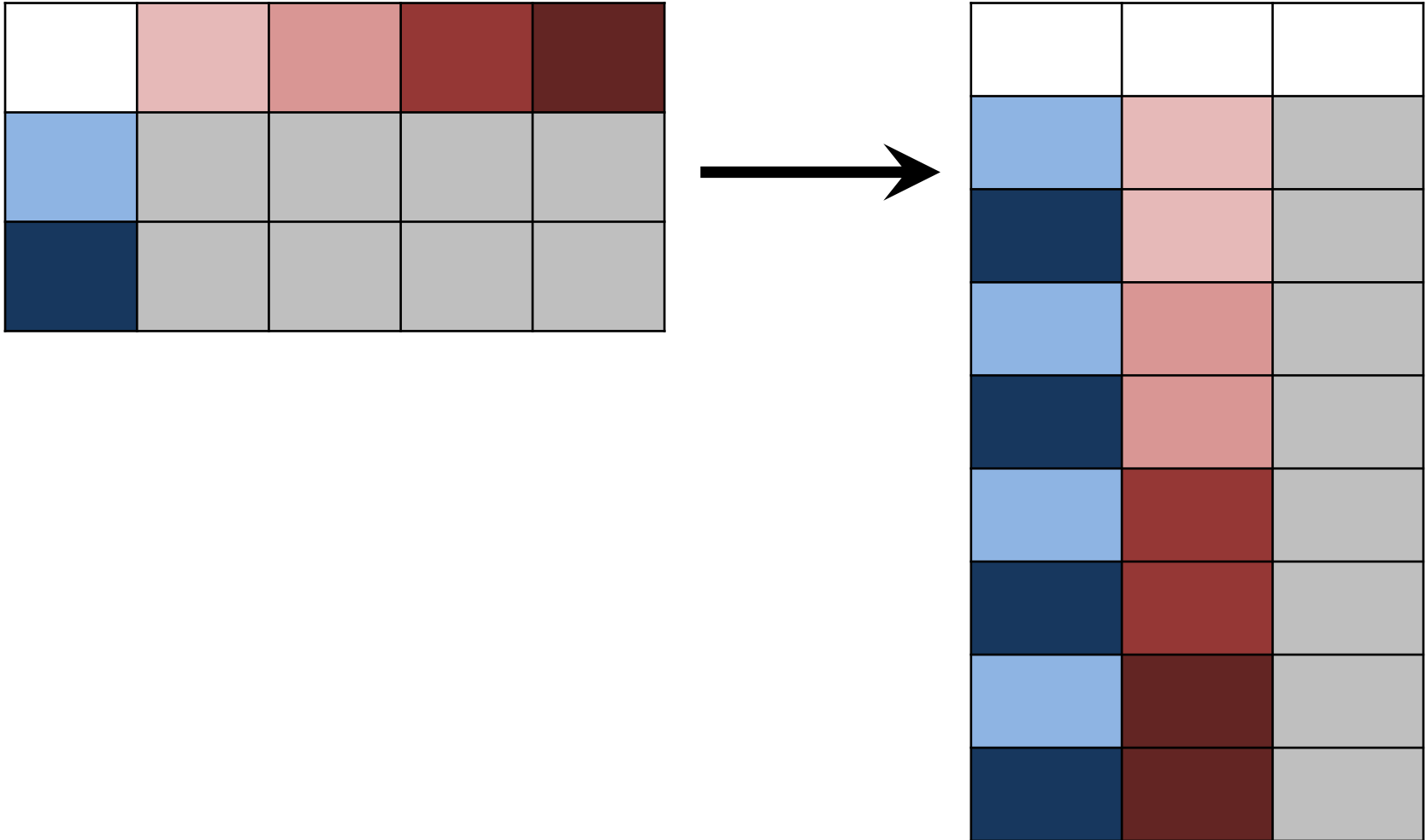


Making data sets tidy: tidyr

The package tidyr has basically 2 functions:

- `gather()` — make a wide table long
- `spread()` — make a long table wide

gather () : make wide table long



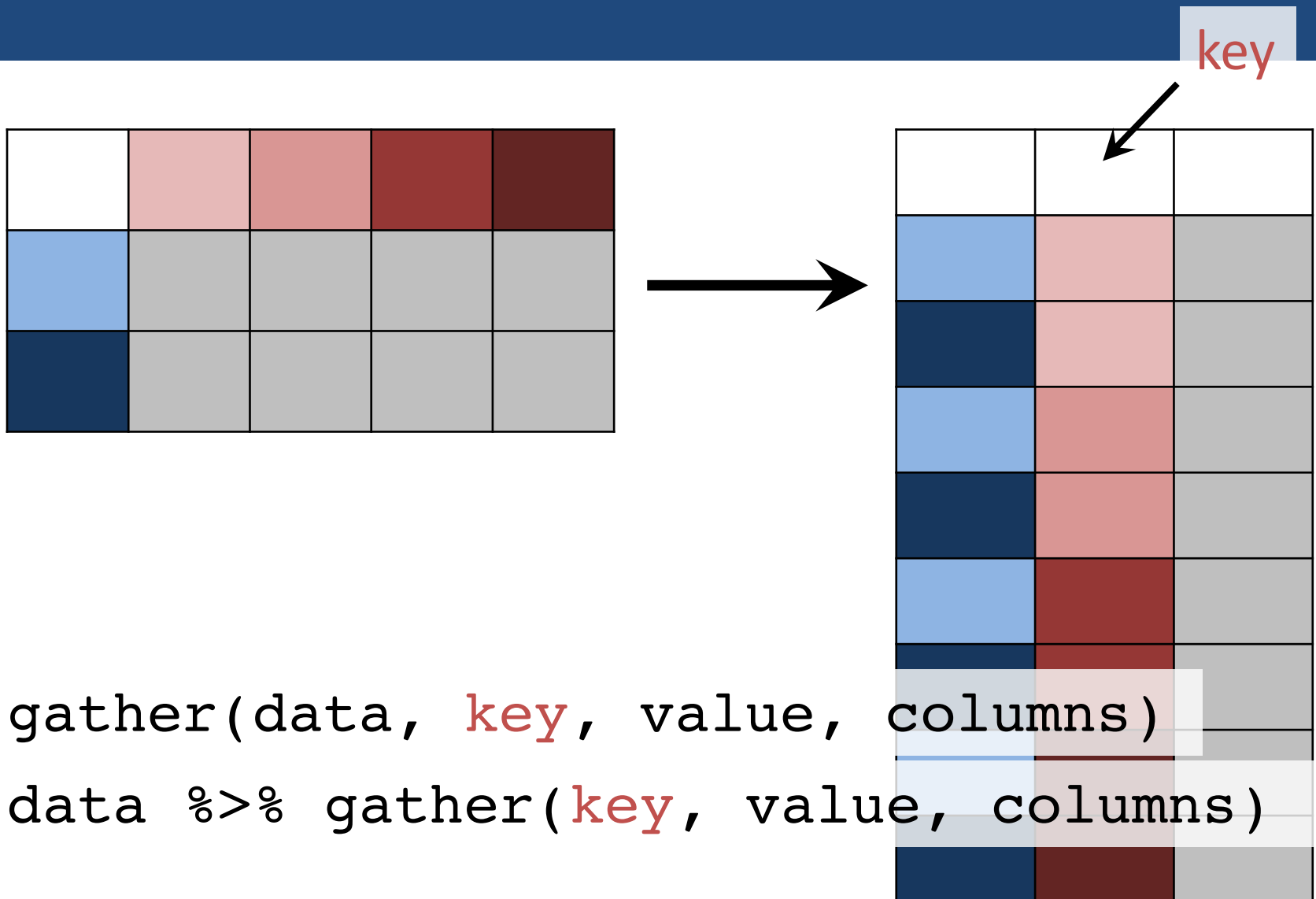
gather(): make wide table long




```
gather(data, key, value, columns)
```

```
data %>% gather(key, value, columns)
```

gather () : make wide table long



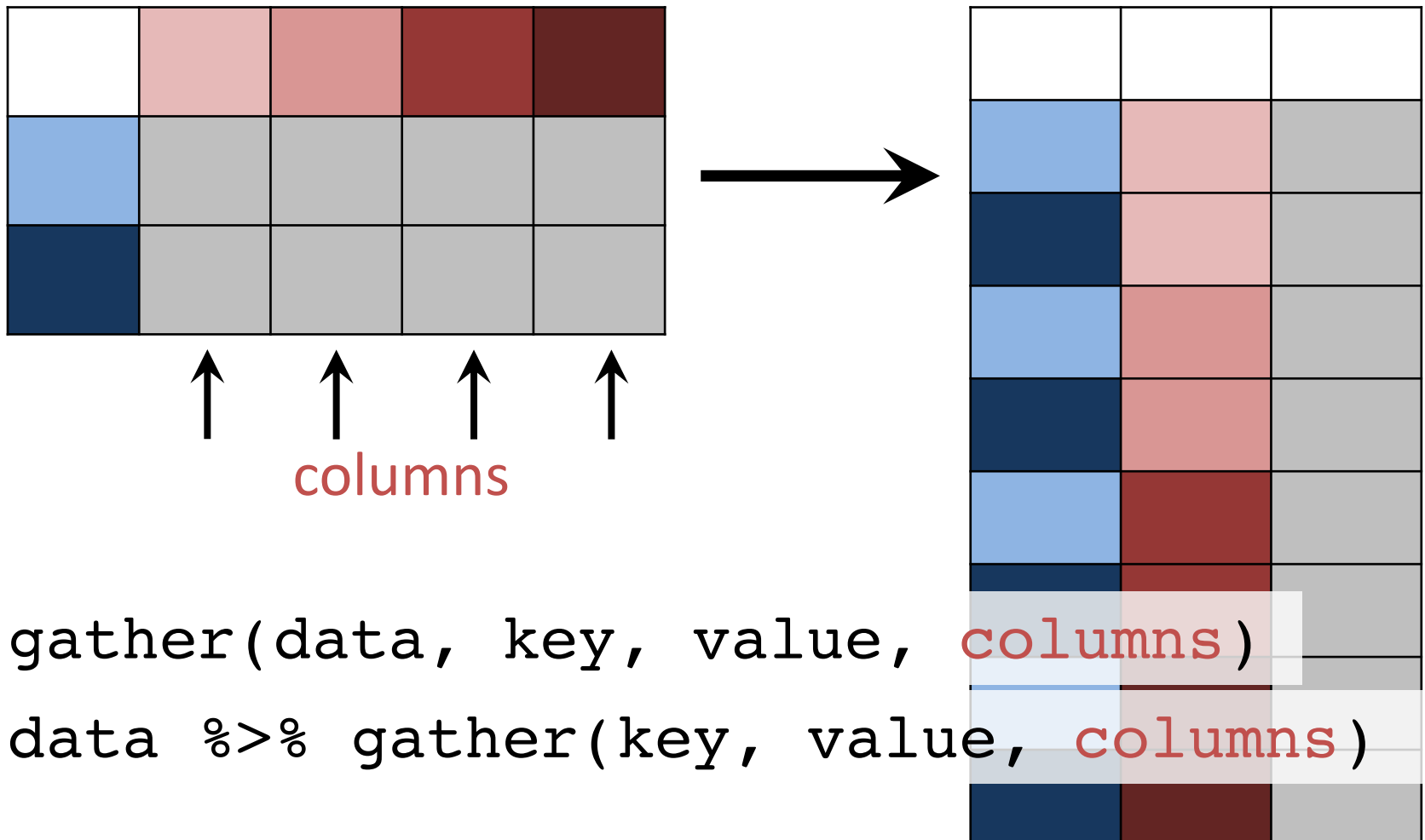
gather () : make wide table long

value




```
gather(data, key, value, columns)  
data %>% gather(key, value, columns)
```

gather(): make wide table long



Example: Let's recreate the Sitka data from a wide table

```
> head(sitka_wide)
  tree treat t152 t174 t201 t227 t258
1     1 ozone 4.51 4.98 5.41 5.90 6.15
2     2 ozone 4.24 4.20 4.68 4.92 4.96
3     3 ozone 3.98 4.36 4.79 4.99 5.03
4     4 ozone 4.36 4.77 5.10 5.30 5.36
5     5 ozone 4.34 4.95 5.42 5.97 6.28
6     6 ozone 4.59 5.08 5.36 5.76 6.00
```

Example: Let's recreate the Sitka data from a wide table

```
> head(sitka_wide)
```

	tree	treat	t152	t174	t201	t227	t258
1	1	ozone	4.51	4.98	5.41	5.90	6.15
2	2	ozone	4.24	4.20	4.68	4.92	4.96
3	3	ozone	3.98	4.36	4.79	4.99	5.03
4	4	ozone	4.36	4.77	5.10	5.30	5.36
5	5	ozone	4.34	4.95	5.42	5.97	6.28
6	6	ozone	4.59	5.08	5.36	5.76	6.00

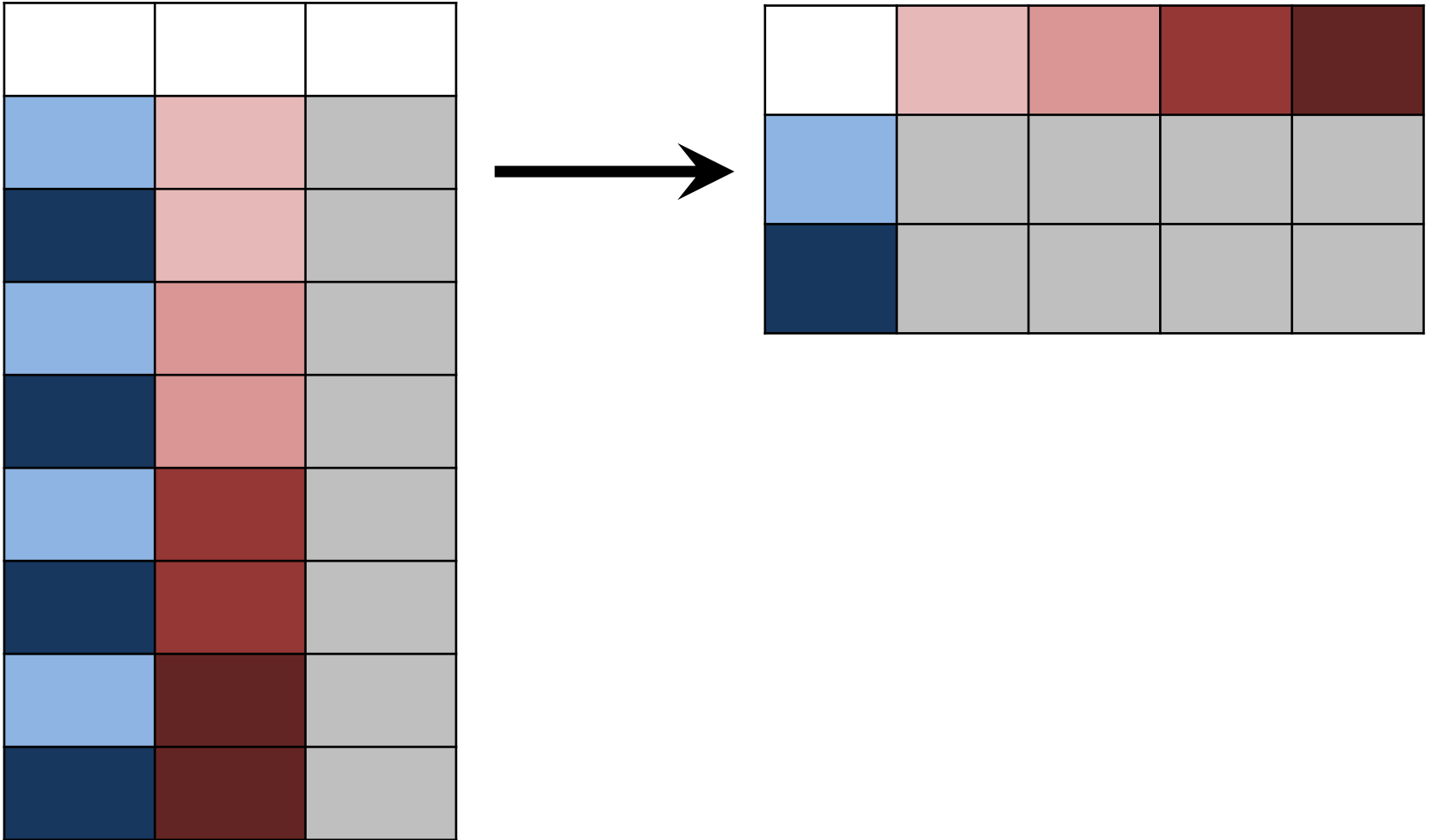
```
sitka_wide %>% gather(time, size, t152:t258)
```


Example: Let's recreate the Sitka data from a wide table

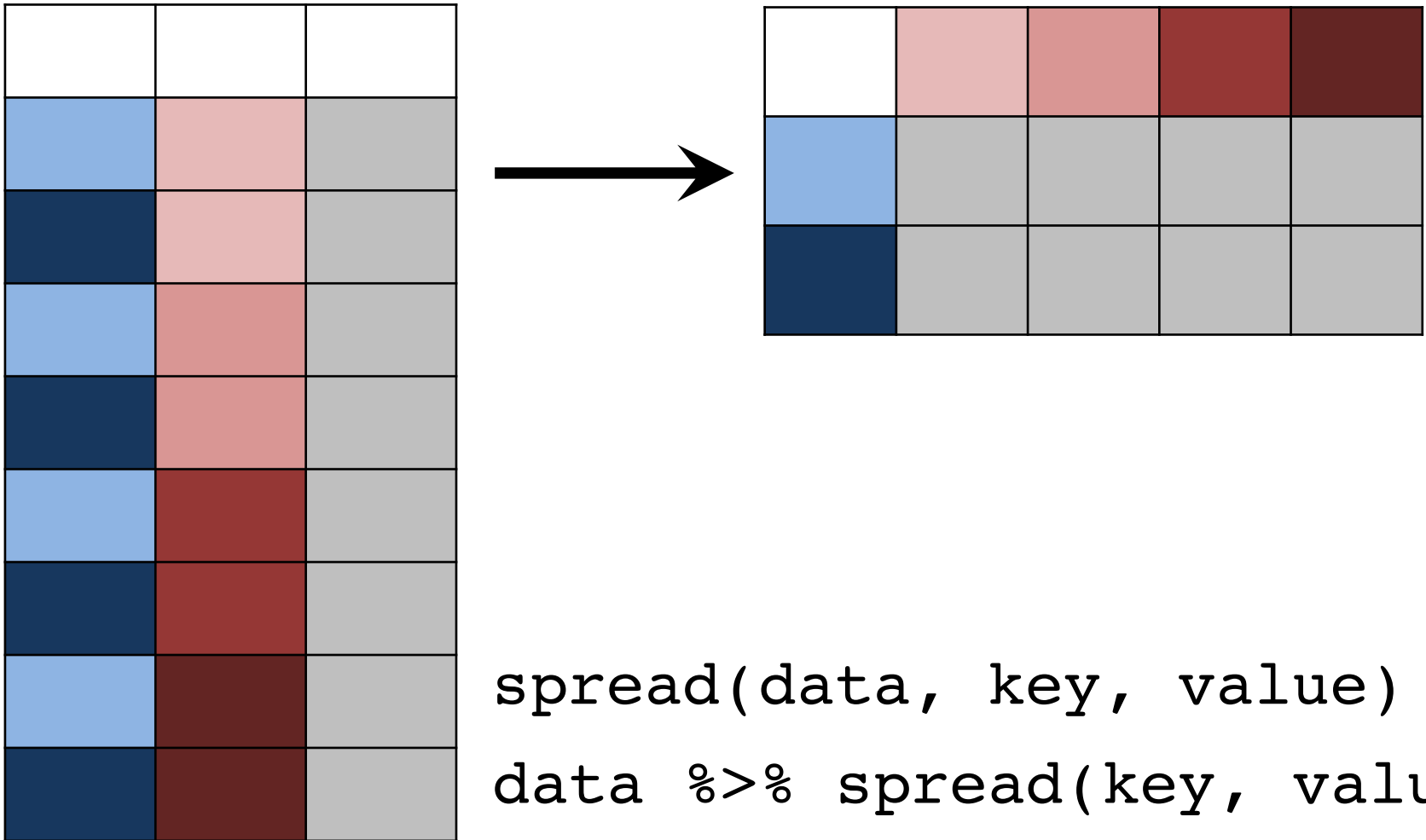
```
> sitka_wide %>% gather(time, size, t152:t258) %>%  
                                head( )
```

	tree	treat	time	size
1	1	ozone	t152	4.51
2	2	ozone	t152	4.24
3	3	ozone	t152	3.98
4	4	ozone	t152	4.36
5	5	ozone	t152	4.34
6	6	ozone	t152	4.59

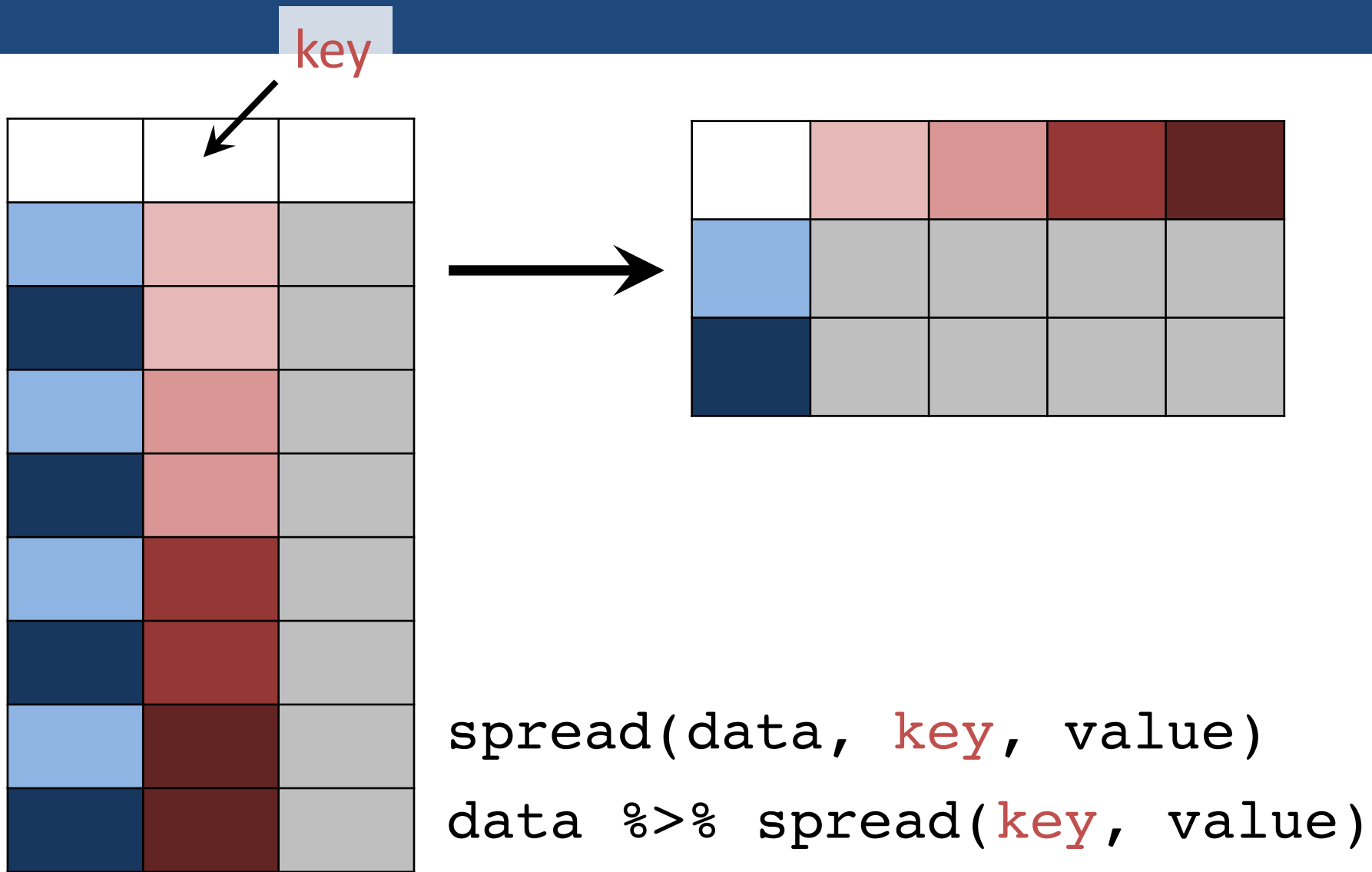
spread(): make long table wide



spread(): make long table wide

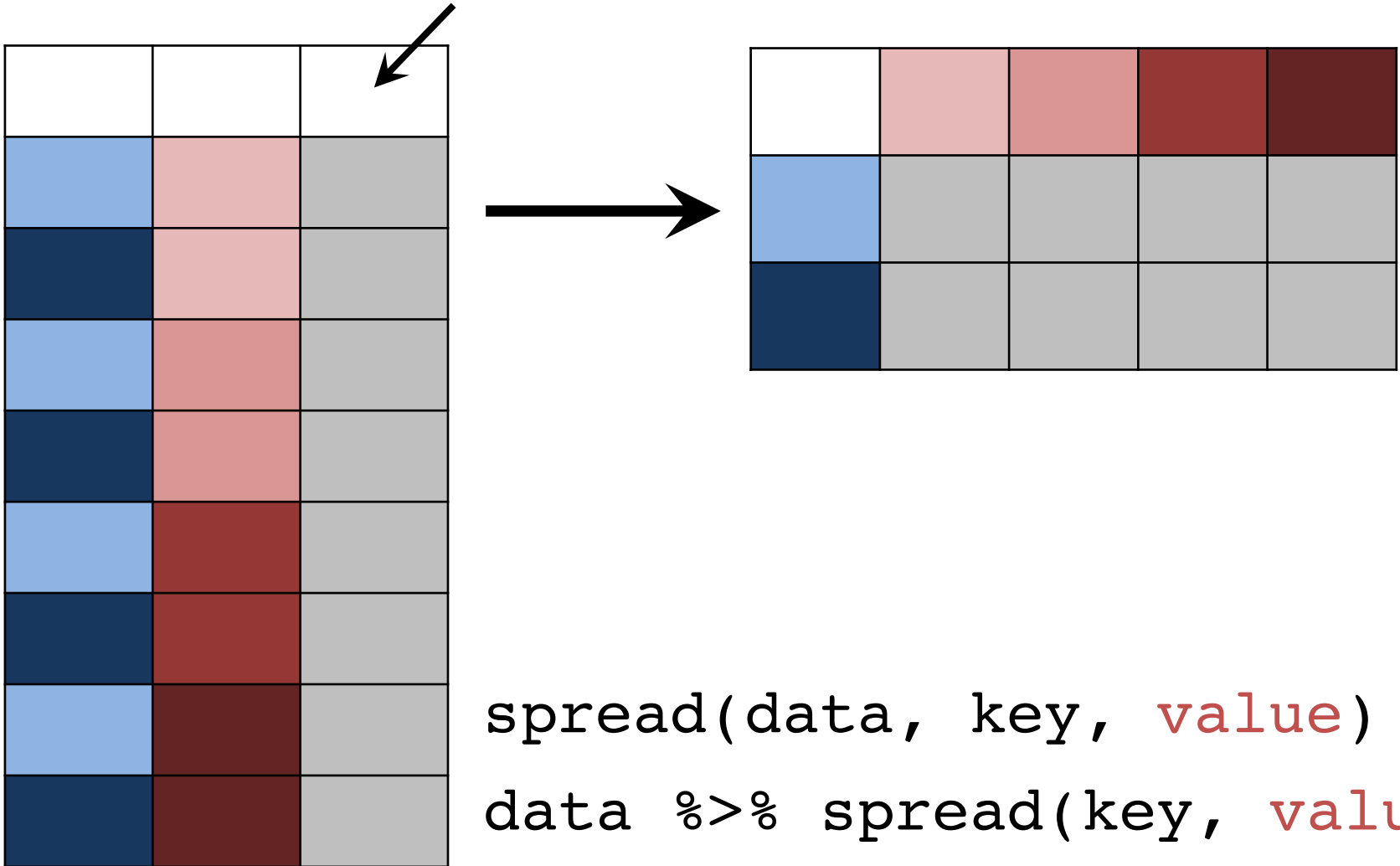


spread(): make long table wide



spread(): make long table wide

value



Example: Let's turn the Sitka data into a wide table

```
> head(Sitka)
  size Time tree treat
1 4.51  152    1 ozone
2 4.98  174    1 ozone
3 5.41  201    1 ozone
4 5.90  227    1 ozone
5 6.15  258    1 ozone
6 4.24  152    2 ozone
```

```
Sitka %>% spread(Time, size)
```

Example: Let's turn the Sitka data into a wide table

```
> Sitka %>% spread(Time, size) %>% head()
  tree treat   152   174   201   227   258
1     1 ozone 4.51 4.98 5.41 5.90 6.15
2     2 ozone 4.24 4.20 4.68 4.92 4.96
3     3 ozone 3.98 4.36 4.79 4.99 5.03
4     4 ozone 4.36 4.77 5.10 5.30 5.36
5     5 ozone 4.34 4.95 5.42 5.97 6.28
6     6 ozone 4.59 5.08 5.36 5.76 6.00
```