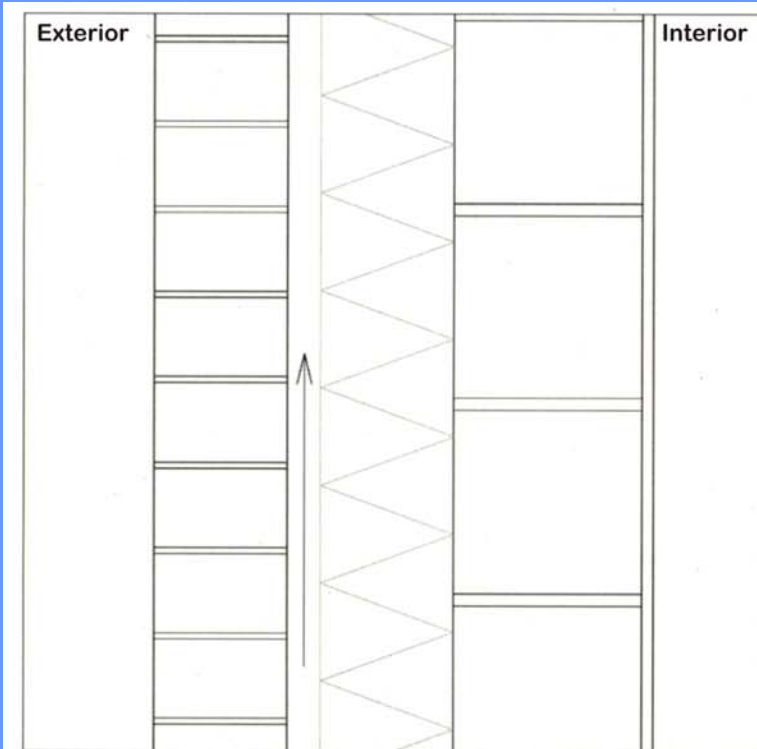


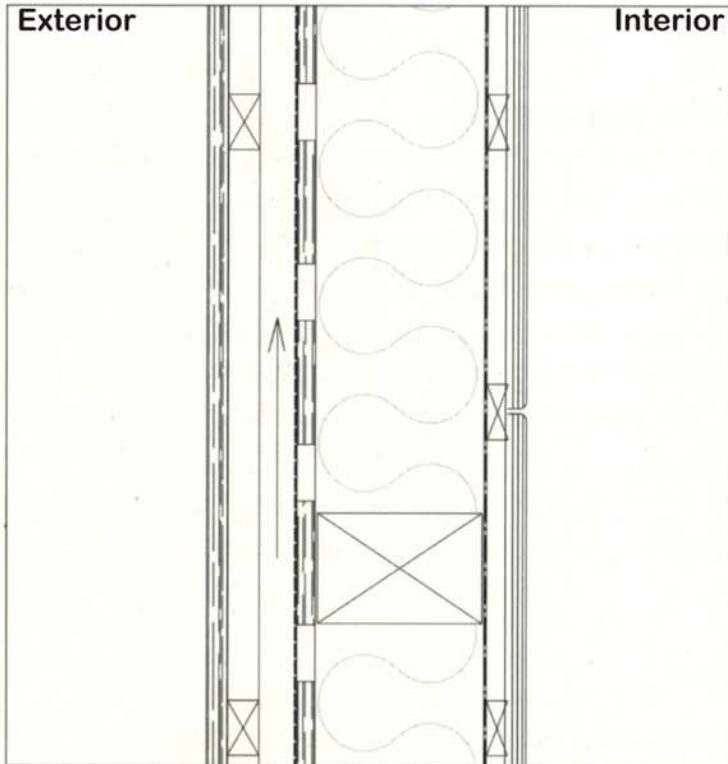
9. Comparison and Assessment of Ecological Components

Clam-shell brickwork



	Var 1 [cm]	Var 2 [cm]	Var 3 [cm]	Construction from exterior to interior
1	12,0	12,0	12,0	Brick
2	4,0	4,0	4,0	Air gap
3	12,0			Flax btw battens
		12,0		Glass wool btw battens
			12,0	Cellulose fiber btw battens
4	17,0	17,0	17,0	Pored perforated brick
5	1,0	1,0	1,0	Clay plaster
	46	46	46	Thickness

Wood stand wall (??? Holzständerwand) with behind-ventilated front



	Var 1 [cm]	Var 2 [cm]	Var 3 [cm]	Construction from exterior to interior
1	2,0	2,0	2,0	Wood formwork
2	3,0	3,0	3,0	Battens 3/5
3	4,0	4,0	4,0	Battens 4/4 - air
4	0,02	0,02	0,02	Building paper - wind protection
5	2,0	2,0	2,0	Saving wood formwork
6	16,0			Rockwool btw timber 8/16
		16,0		Sheepwool btw timber 8/16
			16,0	Cellulose fiber btw timber 8/16
7	0,02	0,02	0,02	PE-steam protection
8	2,0	2,0	2,0	Battens 2/5
9	3,0	3,0	3,0	GKF-fire protection plates, 2ply
	32	32	32	Thickness

Clam-shell brickwork

Building physics characteristic

Building physics - construction	Unit	Variant 1	Variant 2	Variant 3
Thickness	[cm]	46	46	46
Heat transmission coefficient	[W/m ² K]	0,36	0,34	0,36
Sound protection R_w	[dB]	67	67	67
Fire resistance class		F90	F90	F90
Condensat/Dehydratation	[kg/m ² a]	-/>5	-/>5	-/>5
Saving effective inerior mass	[kg/m ²]	90	90	90

Wood stand wall with behind-ventilated front

Building physics characteristic

Building physics - construction	Unit	Variant 1	Variant 2	Variant 3
Thickness	[cm]	32	32	32
Heat transmission coefficient	[W/m ² K]	0,27	0,27	0,29
Sound protection R_w	[dB]	45	45	45
Fire resistance class		F60	F60	F60
Condensat/Dehydratation	[kg/m ² a]	-/0,1	-/0,1	-/0,1
Saving effective inerior mass	[kg/m ²]	24	24	24

Clam-shell brickwork

Ecological characteristic

Construction AW04		Mass in kg/m ²	PEI [MJ/m ²] Not renewable	Greenhousef. 100a 1994 [kg CO ₂ -Äquiv.]	Acidification [g SO _x -Äquiv.]
	1 Brick	216,0	585	53,4	203
	1 Mortar	40,0	56	7,2	24
Var 1	3 Flax with polyester	3,1	164	2,0	40
Var 2	3 Glass wool	2,4	76	3,8	20
Var 3	3 Cellulose fiber - plates	9,0	197	9,3	71
	3 Lumber, timber	9,0	42	-13,9	20
	3 Steel, low alloyed (dowel)	0,3	13	0,9	4
	3 Steel, low alloyed (anchor)	0,4	17	1,2	6
	4 Perforated brick, pored	127,5	335	17,1	49
	4 Mortar	58,0	81	10,4	35
	5 Clay plaster	17,0	8	-1,0	3
	Variant 1	471,3	1302	77,3	383
Total amount	Variant 2	461,6	1172	93,0	343
	Variant 3	468,2	1293	98,5	394

Wood stand wall with behind-ventilated front

Ecological characteristic

Construction AW12		Mass in kg/m ²	PEI [MJ/m ²] Not renewable	Greenhousef. 100a 1994 [kg CO ₂ -Äquiv.]	Acidification [g SO _x -Äquiv.]
	1 Lumber, wood board	10,0	36	-15,5	20
	2 Lumber, timber	2,3	11	-3,5	5
	3 Lumber, timber	1,0	5	-1,5	2
	4 Building paper	0,3	6	0,1	4
	5 Lumber, timber	9,0	33	-13,9	18
	6 Lumber, timber	12,0	56	-18,6	26
Var 1	6 Rockwool	3,7	64	4,4	19
Var 2	6 Sheepwool	4,1	50	-1,1	19
Var 3	6 Cellulose fiber	7,5	31	1,7	18
	7 Polyethylene	0,3	26	0,7	5
	8 Lumber, timber	1,5	7	-2,3	3
	9 Plasterboard - 2x	27,0	61	2,8	27
	Variant 1	67,0	304	-47,3	129
Total amount	Variant 2	67,4	290	-52,8	128
	Variant 3	70,8	271	-50,0	128