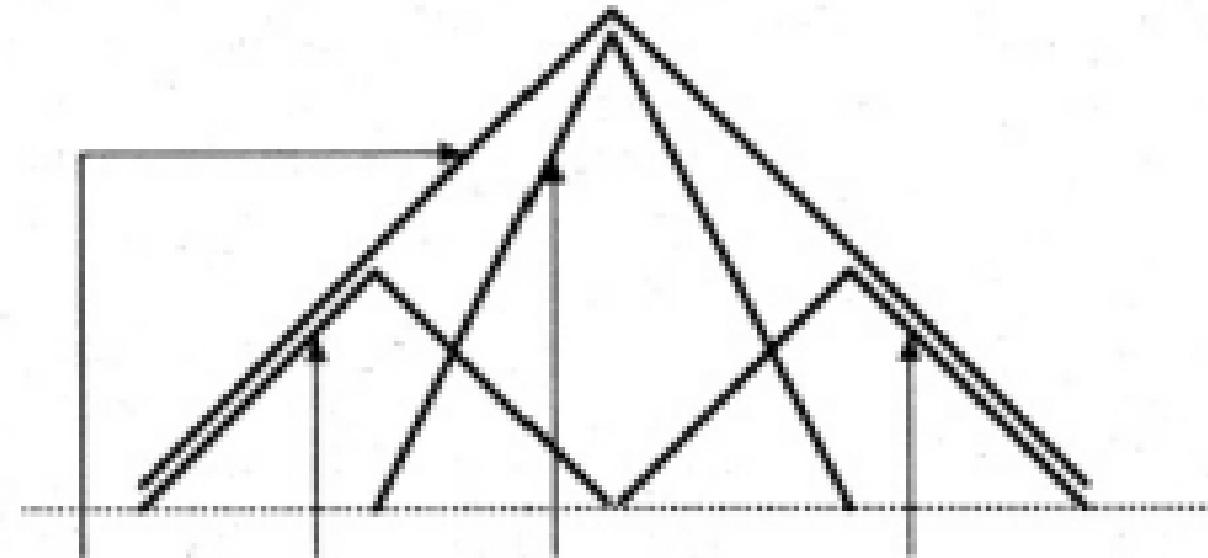
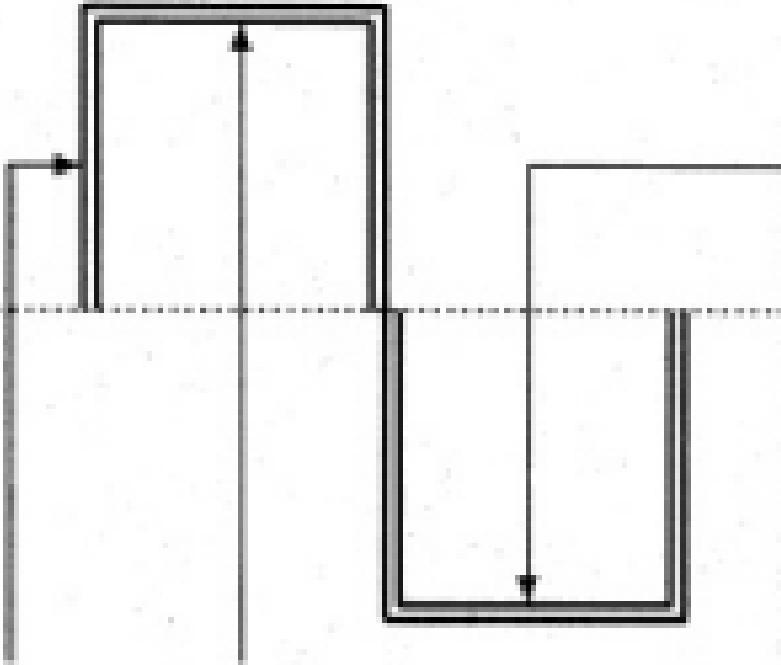


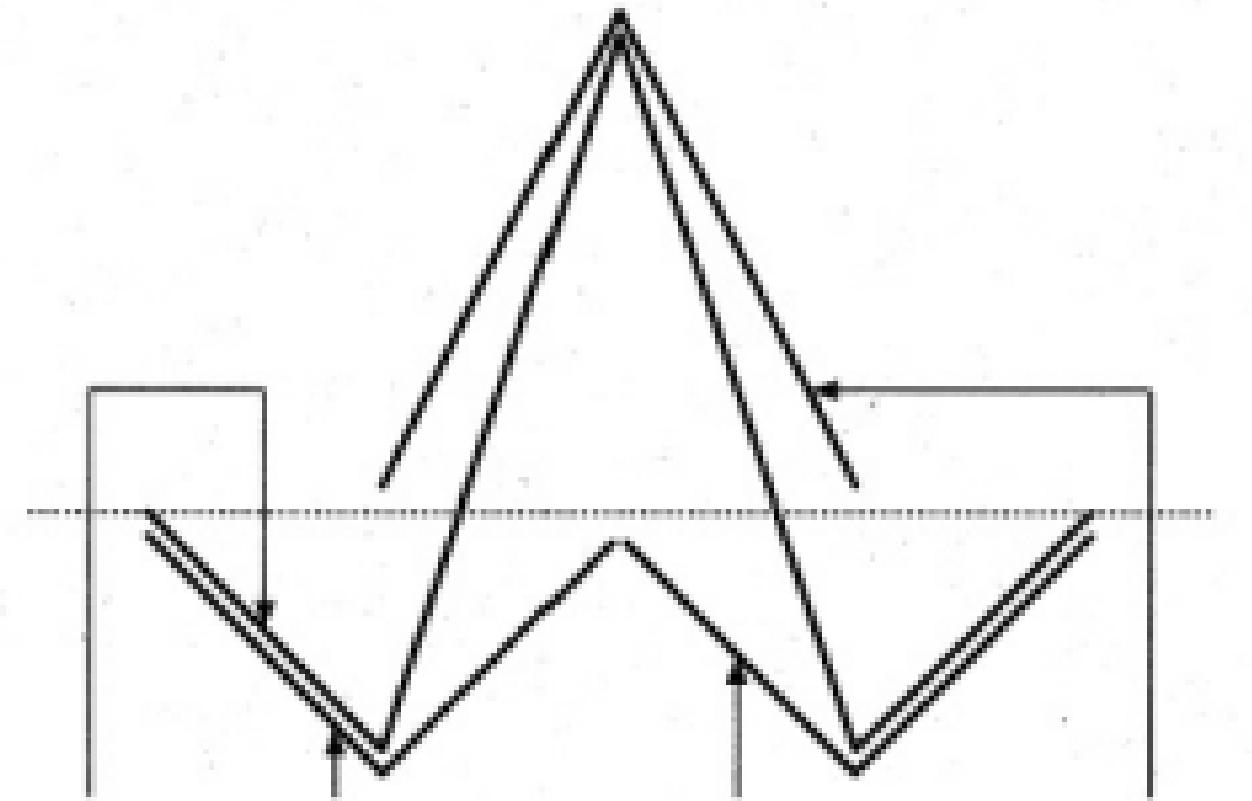
$$\phi(t) = \phi(2t) + \phi(2t - 1)$$



$$\phi(t) = \frac{1}{2}\phi(2t) + \phi(2t - 1) + \frac{1}{2}\phi(2t - 2)$$



$$\psi(t) = \phi(2t) - \phi(2t-1) -$$



$$\psi(t) = -\frac{1}{2}\phi(2t) - \frac{1}{2}\phi(2t-2) + \phi(2t-1)$$

$j = 1$ $j = 0$

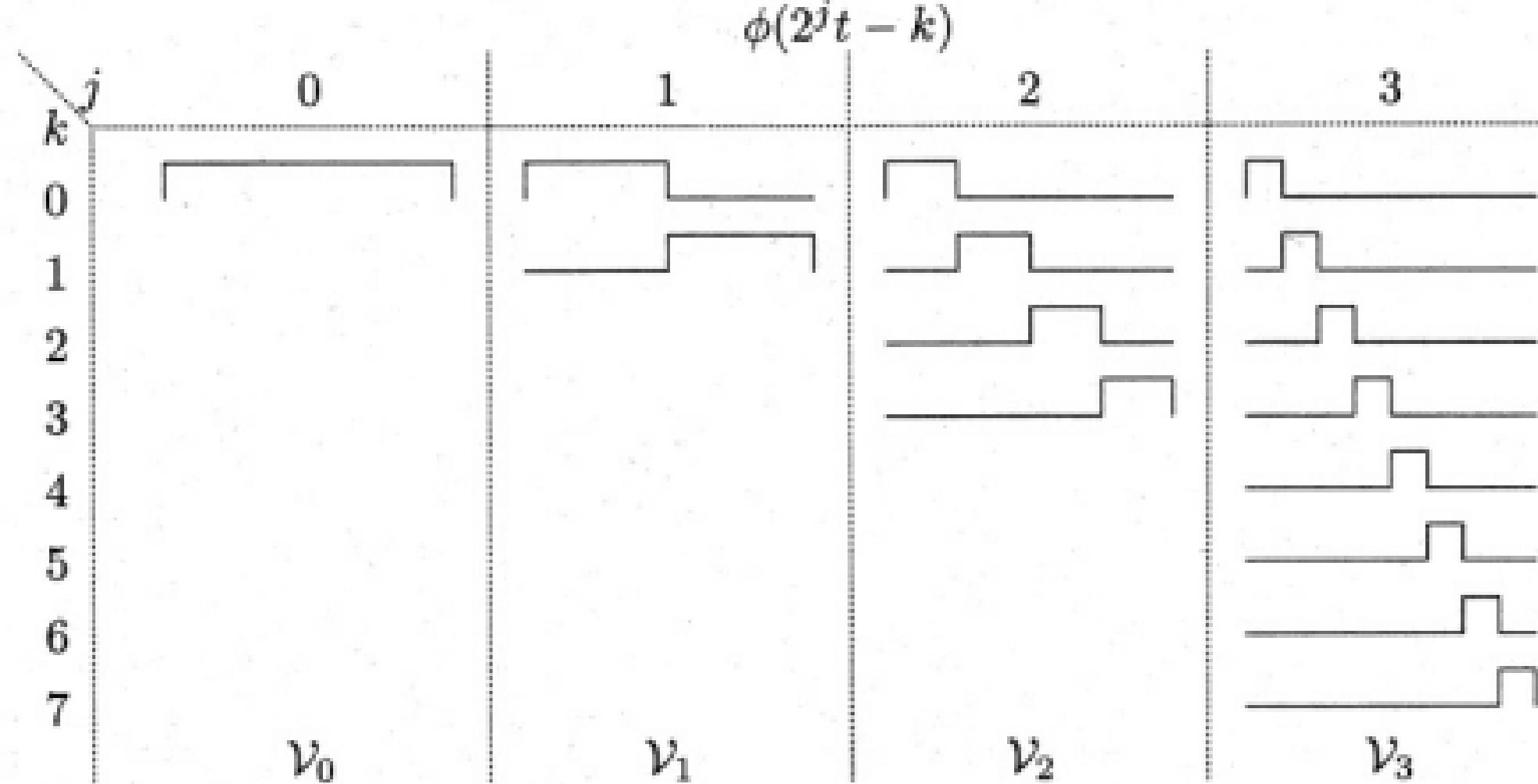
$$\phi(t - k) \quad \mathcal{V}_0$$

$$\mathcal{V}_1 \quad \phi(2t - k)$$

$$\psi(t - k) \quad \mathcal{W}_0$$

$$\mathcal{V}_1 = \mathcal{V}_0 \oplus \mathcal{W}_0$$

$$\phi(2^j t - k)$$

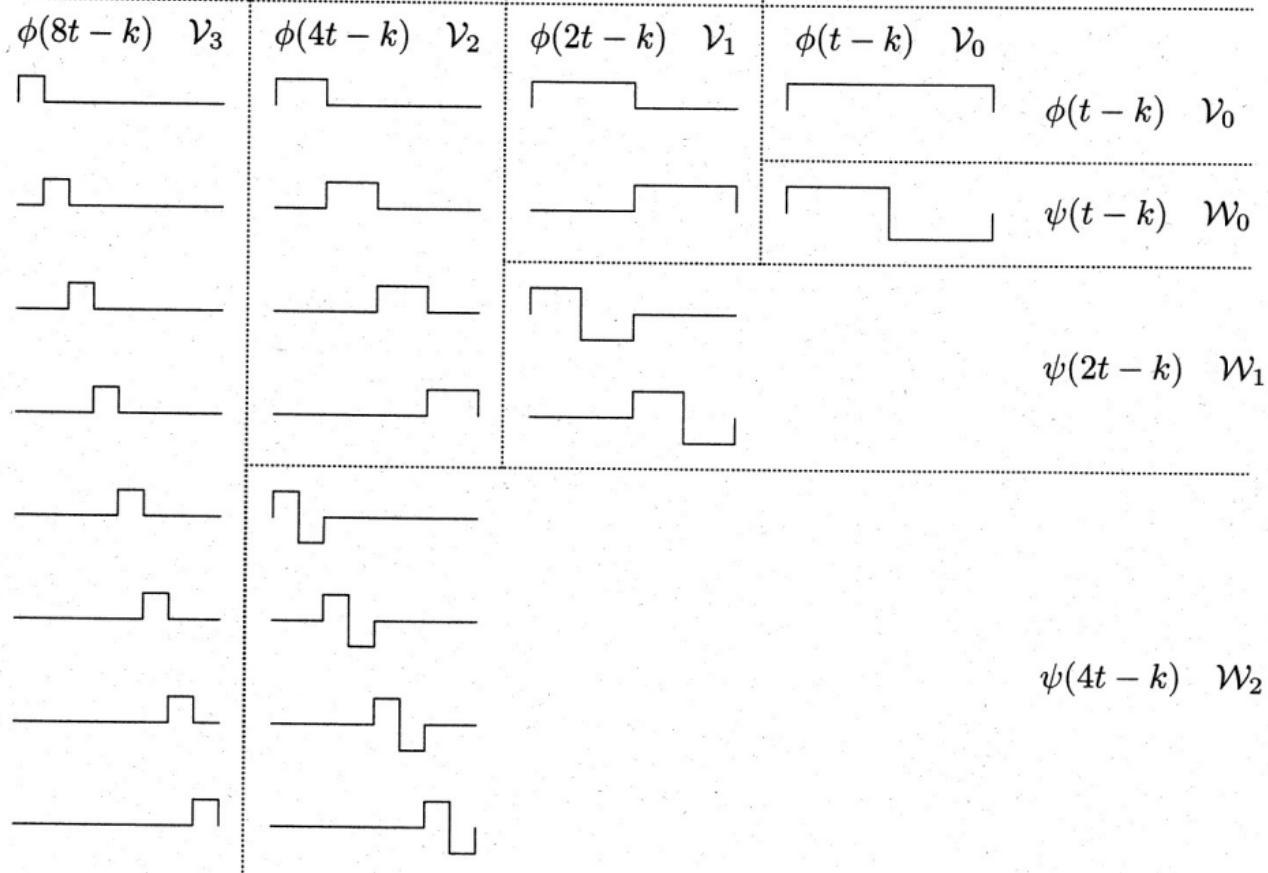


$$j = 3$$

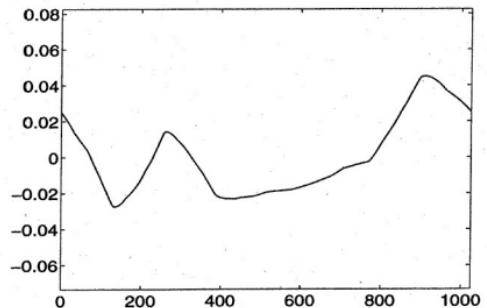
j = 2

$$j = 1$$

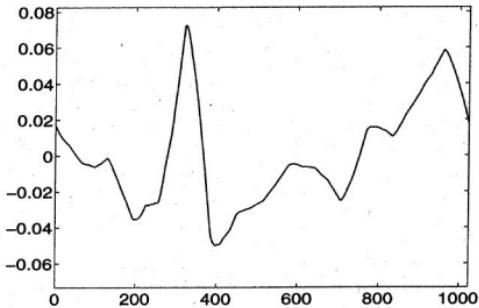
$$j = 0$$



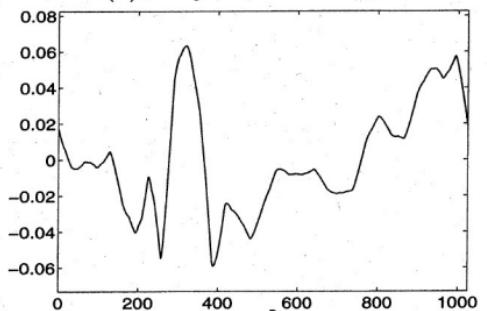
$$\mathcal{V}_3 = \mathcal{V}_0 \oplus \mathcal{W}_0 \oplus \mathcal{W}_1 \oplus \mathcal{W}_2$$



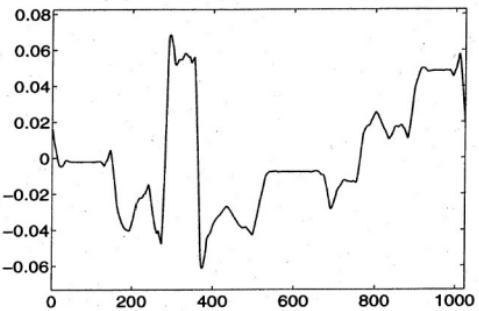
(a) Projection onto \mathcal{V}_0



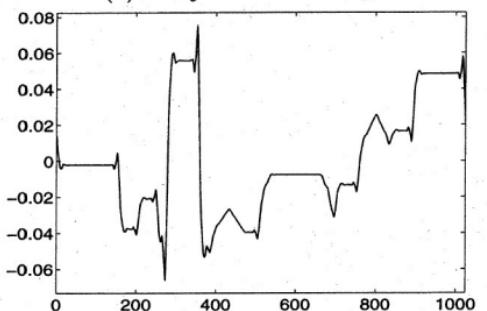
(b) Projection onto \mathcal{V}_1



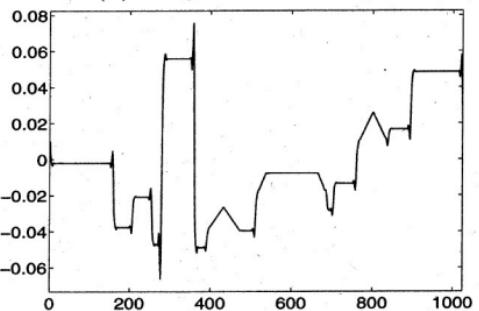
(c) Projection onto \mathcal{V}_2



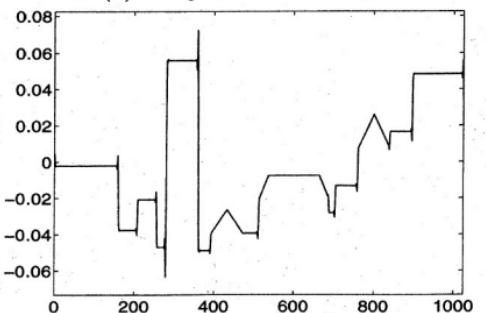
(d) Projection onto \mathcal{V}_3



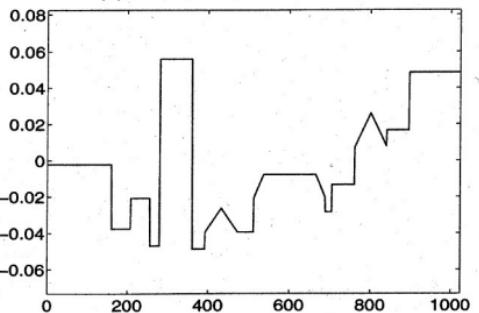
(e) Projection onto \mathcal{V}_4



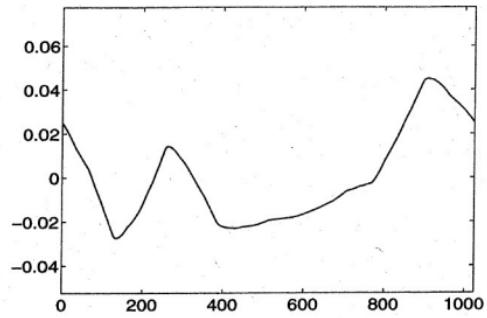
(f) Projection onto \mathcal{V}_5



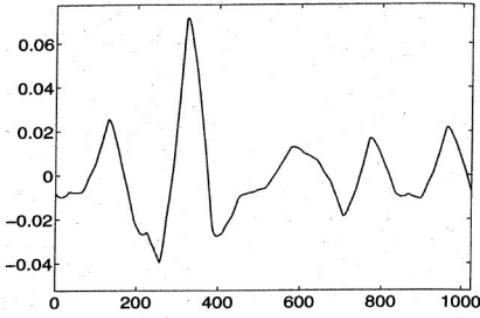
(g) Projection onto \mathcal{V}_6



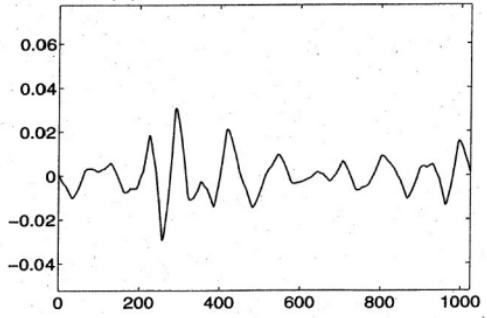
(h) Projection onto \mathcal{V}_7



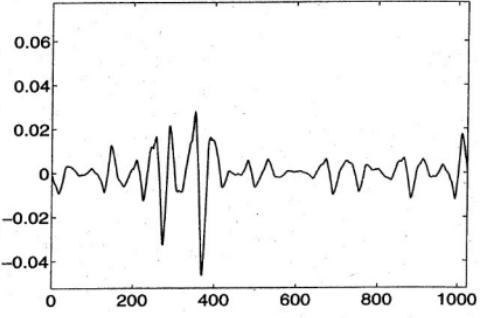
(a) Projection onto \mathcal{V}_0



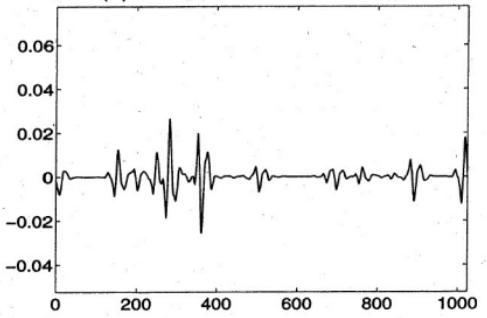
(b) Projection onto \mathcal{W}_0



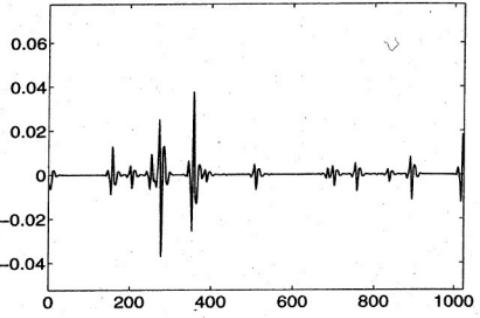
(c) Projection onto \mathcal{W}_1



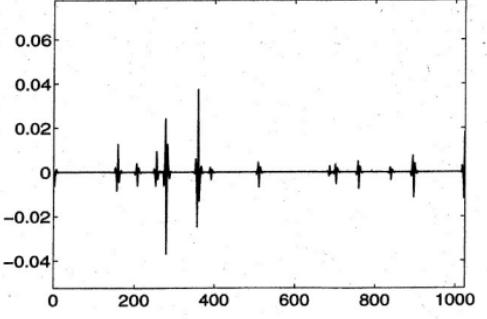
(d) Projection onto \mathcal{W}_2



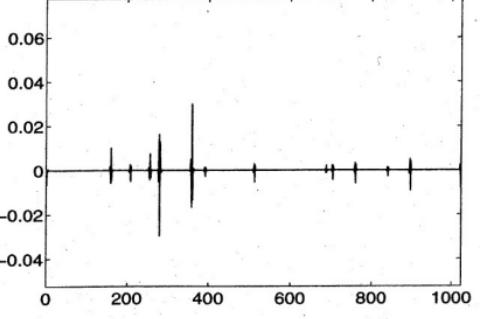
(e) Projection onto \mathcal{W}_3



(f) Projection onto \mathcal{W}_4



(g) Projection onto \mathcal{W}_5



(h) Projection onto \mathcal{W}_6